

1 16-F-0205 - Canisteo Wind Energy - 8-21-19

2 NEW YORK STATE

3 DEPARTMENT OF PUBLIC SERVICE

4
5 16-F-0205 - APPLICATION OF CANISTEO
6 WIND ENERGY LLC FOR A CERTIFICATE OF ENVIRONMENTAL
7 COMPATIBILITY AND PUBLIC NEED PURSUANT TO ARTICLE 10
8 FOR CONSTRUCTION AND OPERATION OF A WIND ENERGY
9 PROJECT IN STEUBEN COUNTY.

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11 EVIDENTIARY HEARING

12 August 21, 2019

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18 ALJ MAUREEN LEARY, DPS
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2 APPEARANCES:

3 ATTORNEYS FOR MR. JOHN SHARKEY

4 BENJAMIN WISNIEWSKI, ESQ.

5 BRIDGET O'TOOLE , ESQ.

6 ZOGHLIN GROUP, P.L.L.C.,

7

8 FOR THE TOWNS OF CAMERON, CANISTEO, GREENWOOD, WEST UNION,

9 JASPER, AND TROUPSBURG

10 AARON MULLEN, ESQ.

11 LAW FIRM MULLEN ASSOCIATES, P.L.L.C.,

12

13 FOR THE APPLICANT:

14 JOHN DAX, ESQ.

15 THE DAX LAW FIRM

16 EKIN SENLET, ESQ.

17 FIRM OF BARCLAY DAMON

18

19 NEW YORK STATE DEPARTMENT OF

20 ENVIRONMENTAL CONSERVATION STAFF:

21 KARA PAULSEN

22

23 NEW YORK STATE DEPARTMENT OF PUBLIC SERVICE STAFF:

24 JESSICA VIGARS

25

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2 P R O C E E D I N G I N D E X

3 Witnesses

4 ANDY DAVIS 1124

5 BRIANNA DENONCOUR 1177

6 MICHAEL MORGANTE 1222

7 JACOB RUNNER 1272

8 GORDON WOODCOCK 1345

9 JOHN HECKLAU 1481

10 ERIC MILLER 1574

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2 A.L.J. LEARY: We're going to go on
3 the record. And, I do want to today, take
4 appearances because this looks like the right group
5 that has always been here or for most of the time.

6 So, do you want to start over here and
7 note your appearance for the record?

8 MR. SHARKEY: John Sharkey.

9 MR. WISNIEWSKI: Attorney Ben
10 Wisniewski with the Zoghlin Group, P.L.L.C.,
11 representing Mr. John Sharkey.

12 MR. O'TOOLE: Bridget O'Toole with the
13 Zoghlin Group, representing Mr. John Sharkey.

14 MR. MULLEN: Aaron Mullen, Mullen and
15 Associates, P.L.L.C., representing the Towns of
16 Canisteo, Cameron, Jasper, Troupsburg, Greenwood and
17 West Union.

18 MS. OKLEVITCH: Elizabeth Oklevitch,
19 Mullen and Associates, also representing the Towns.

20 MS. SENLET: Ekin Senlet from *Barclay
21 Damen, representing Canisteo Green Energy, L.L.C.

22 MR. DAX: John Dax from the Dax Law
23 Firm for the Applicant.

24 MS. BONILLA: Mary Anne Bonilla on
25 behalf of the Department of Environmental

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 Conservation.

3 MS. PAULSEN: Kara Paulsen on behalf
4 of the Department of Environmental Conservation
5 Staff.

6 MS. VIGARS: Jessica Vigars on behalf
7 of the Department of Public Service Staff.

8 MS. PARTYKA: Cassandra Partyka on
9 behalf of the Department of Public Service Staff.

10 A.L.J. LEARY: Welcome. Now -- now, I
11 remember why I was doing appearances today for you.

12 A.L.J. SHERMAN: There's a new
13 appearance.

14 A.L.J. LEARY: There's a new
15 appearance. Do you have a card for the court
16 reporter?

17 THE REPORTER: I grabbed one from her.

18 MS. PARTYKA: We're all set.

19 A.L.J. LEARY: Perfect. Okay. Mr.
20 Davis, are you ready to go?

21 MS. VIGARS: Yup.

22 A.L.J. LEARY: Okay.

23 MS. MEAGHER: Your Honor?

24 A.L.J. LEARY: Yes.

25 MS. MEAGHER: Mona Meagher for CMOR,

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 Citizens for Maintaining our Rural Environment.

3 A.L.J. LEARY: Sorry, Ms. Meagher.
4 You know what, I think I failed to plug this in. So,
5 you are not going -- this is off the record.

6 (Off the record)

7 A.L.J. LEARY: Back on the record.
8 Ms. -- Ms. Vigars, proceed.

9 MS. VIGARS: Do I -- does he need to
10 be sworn in to the record?

11 A.L.J. LEARY: I'm sorry, swear the
12 witness. Mr. Davis, would you raise your right hand.
13 Do you swear that the testimony you are about to give
14 is the truth and the whole truth?

15 MR. DAVIS: I affirm that my testimony
16 will -- will be the truth.

17 THE WITNESS; ANDY DAVIS; Affirmed.

18 A.L.J. LEARY: Thank you. Would you
19 state your name and affiliation for the record?

20 THE WITNESS: Andrew C. Davis, Utility
21 Supervisor for the Department of Public Service
22 Staff.

23 DIRECT EXAMINATION

24 BY MS. VIGARS:

25 Q. Mr. Davis, before you is a

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2 document entitled, Prepared Testimony of Andrew C.
3 Davis, consisting of a cover page and 38 pages of
4 questions and answers, dated July 12th, 2019 and six
5 exhibits submitted with your testimony, labeled
6 A.C.D.-1 through A.C.D.-6, is that correct?

7 A. That is correct.

8 Q. Was this testimony and exhibits
9 prepared by you or under your direct supervision?

10 A. Yes, it is.

11 Q. Do you have any changes or
12 corrections to make to that testimony?

13 A. These -- filed corrected
14 testimony and I have no changes to that corrected
15 testimony.

16 Q. Thank you. And, at the time of
17 that filing of the corrected testimony, did you file
18 both a red line and a clean corrected version?

19 A. Yes.

20 Q. Thank you. Aside from those
21 corrections, if you were asked the same questions
22 today under oath, would you answer them the same way?

23 A. Yes, I would.

24 Q. And, do you affirm the
25 information contained in those exhibits, true to the

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2 best of your knowledge?

3 A. I'm sorry.

4 Q. And, do you affirm the
5 information contained in that testimony and exhibits,
6 is true to the best of your knowledge?

7 A. Yes, it is.

8 MS. VIGARS: Your Honor, I would like
9 to move that the pre-filed initial testimony and
10 exhibits of Mr. Davis, be entered into the record as
11 if given orally during the hearing today?

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BEFORE THE
STATE OF NEW YORK
SITING BOARD ON ELECTRIC GENERATION
AND THE ENVIRONMENT

In the Matter of

Canisteo Wind Energy, LLC

Case 16-F-0205

July 12, 2019

Prepared Testimony of:

Andrew C. Davis,
Utility Supervisor
Office of Electric, Gas &
Water
Environmental Certification
& Compliance Section

State of New York
Department of Public Service
Three Empire State Plaza
Albany, New York 12223-1350

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1 Q. Please state your name and business address.

2 A. Andrew C. Davis, Three Empire State Plaza,
3 Albany, New York 12223.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the New York State Department
6 of Public Service (Department) as a Utility
7 Supervisor in the Office of Electric, Gas &
8 Water in the Environmental Certification and
9 Compliance Section (Staff).

10 Q. Please describe your education and work
11 experience.

12 A. My education and work experience are reflected
13 in the attached *Curriculum Vitae* identified as
14 Exhibit__(ACD-1). That document also lists the
15 cases where I have previously provided testimony
16 to the Public Service Commission (Commission)
17 and the New York State Siting Board on Electric
18 Generation and the Environment (Siting Board).

19 Q. What is the purpose of your testimony?

20 A. My testimony will provide analysis of certain
21 environmental and land use impacts associated

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1 with the Canisteo Wind Generating Facility (the
2 Facility) proposed by Canisteo Wind Energy NY,
3 LLC (CWE or the Applicant), a subsidiary of
4 Invenergy Wind North America, LLC.

5 Q. Are you sponsoring and/or relying upon any
6 Exhibits as part of your testimony?

7 A. Yes. I have relied on the Application,
8 supplements, discovery responses, and associated
9 documents. I am sponsoring specific exhibits:
10 Ex.____(ACD-2) an information request(IR)
11 response from CWE regarding land use; Ex.__(ACD-
12 3) correspondence regarding cultural resources
13 review; Ex. __ (ACD-4) a NYSDOT webpage regarding
14 a proposed Scenic Byway; Ex. __ (ACD-5) a
15 portion of the viewshed map of the project site;
16 and Ex. ____ (ACD-6) an IR response from CWE
17 regarding Troupsburg local laws. In addition, I
18 am recommending proposed compliance filing
19 criteria and Certificate Conditions that are in
20 exhibits more directly sponsored by the Staff
21 Policy Panel's testimony.

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1 Q. As part of your analysis, what components of
2 Canisteo Wind's Application (the Application)
3 and its supplements did you review?

4 A. I specifically reviewed Exhibit 3 - Location of
5 Facilities; Exhibit 4 - Land Use; Exhibit 9 -
6 Alternatives; Exhibit 11 - Preliminary Design
7 Drawings (Facilities Lighting Plan); Exhibit 13
8 - Real Property; Exhibit 15 - Public Health and
9 Safety (Shadow Flicker); Exhibit 20 - Cultural
10 Resources; Exhibit 24 - Visual Impacts; Exhibit
11 28 - Environmental Justice; Exhibit 31 - Local
12 Laws and Ordinances; and Exhibit 32 - State Laws
13 and Regulations.

14 Q. Would you please summarize your testimony?

15 A. My testimony will review resource impacts not
16 fully addressed by the Application; introduce
17 additional information not addressed by the
18 Application and filed supplemental information;
19 propose and/or support measures to avoid,
20 reduce, minimize or mitigate certain adverse
21 impacts; and will make recommendations for

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1 consideration by the Siting Board in reaching
2 its determination as to whether, and upon what
3 conditions, to grant a Certificate of
4 Environmental Compatibility and Public Need (the
5 Certificate); and identify a new local law issue
6 created by the May 24, 2019 Application Update.

7 Q. Does the Application adequately identify the
8 location of proposed Project facilities?

9 A. The Application as supplemented and updated
10 identifies the location of proposed major
11 generating facilities sites and ancillary
12 facilities, within the Towns of Cameron,
13 Canisteo, Greenwood, Jasper, Troupsburg, and
14 West Union, Steuben County, in various figures
15 and drawings throughout the several volumes of
16 the Application and supplements. The number of
17 specific wind turbine sites exceeds the number
18 of sites that would need to be developed,
19 particularly if the larger output wind turbines
20 identified in the May 24, 2019 Application
21 Update are specified.

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1 Q. Does the Application address land uses at the
2 Facility site?

3 A. Yes, Exhibit 4 provides information as generally
4 required by the applicable regulations.

5 Q. Will the Project have adverse effects on any
6 existing land uses?

7 A. Yes. The Project will have some short-term
8 impacts on agricultural uses during the
9 construction phase, including topsoil stripping,
10 access interruptions, and crop losses. The
11 Project will potentially have longer-term
12 impacts due to the minor reductions in
13 productive agricultural area as a result of the
14 Facility's development of access roads and
15 turbine sites (as well as the overhead electric
16 transmission line placements proposed in related
17 Article VII Case 19-T-0041).
18 The Project will also cause the conversion of
19 forest land to other cover types and uses
20 representative of a wind-powered electric
21 generating use, including access roads, wind

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1 turbine sites, and electric collection line
2 corridors. Forest cleared for facilities will
3 generally be converted to non-forested cover
4 types, allowing uses such as grazing, hunting,
5 and enhanced access to remote areas. Another
6 aspect of forest land conversion from the
7 proposed facilities relates to reductions in
8 acreage eligible to participate in the New York
9 Real Property Tax Law §480-a program (referred
10 to as the Forest Tax Law program or §480-a
11 program). This program provides an opportunity
12 for forest landowners to abate property taxes on
13 forest land by enrolling in a long-term forest
14 management program administered by the
15 Department of Environmental Conservation
16 (NYSDEC). Local property tax payments are
17 reduced, and the value of income from periodic
18 commercial sale of forest products from the
19 property is taxed. The 480-a program requires
20 minimum acreage enrollment and adoption and
21 adherence to a forest management plan prepared

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1 by a professional forester. The 480-a program
2 does not allow continued enrollment of acreage
3 that is permanently converted to other uses
4 (except where land is acquired for public
5 benefit such as for public utility transmission
6 lines under New York State Public Service Law
7 (PSL) Article VII. There is, however, no such
8 exemption for accommodation of generating
9 facilities pursuant to PSL Article 10). The
10 Application identifies seven participating
11 properties that are enrolled in the §480-a
12 program, including three that would be affected
13 by the proposed facility layout (Application
14 Vol. I, Ex. 4, page 4-10; and updated at May 24,
15 2019 Application Update, Update Ex.4, section
16 4.q, page 4-10; and Updated Figure 4-2 - Land
17 Use Programs - Rev. 1). CWE provided responses
18 to Department Staff request for additional
19 information regarding these parcels (Ex.
20 ____ (ACD-2)).

21 Q. What was the Applicant's response?

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1 A. The response describes the nature of the
2 enrolled forest acreage affected by the proposed
3 facility layout. Based on the size of the
4 enrolled acreages, the reduction of forest cover
5 should not make the entire parcels ineligible
6 for ongoing participation in the program (since
7 remaining unaffected acreage exceeds 50 acres
8 minimum enrollment criterion).

9 Q. Is this strictly a private interest or is there
10 an implication of public interest?

11 A. The 480-a program, like the Agricultural
12 Districts program, is a public interest
13 consideration in facilities' siting and other
14 potential land use development, as these
15 programs provide incentives to landowners to
16 participate in long-term resource conservation
17 and encourage responsible resource use and
18 management. When siting a major electric
19 facility, the conversion of land use from
20 managed forest (or dedicated agricultural use)
21 is a potential adverse effect. However,

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1 responsible siting can avoid or minimize these
2 impacts or conversions and should be explored
3 and adopted wherever feasible in order to
4 minimize the impact to managed forest and/or
5 agricultural lands.

6 Q. What other kinds of impacts did you evaluate?

7 A. The Facility may also impact the use and
8 enjoyment of residential property, as a result
9 of shadow flicker. According to the
10 Application, some residences may experience in
11 excess of 30 hours of shadow flicker annually
12 (as reviewed at Application Exhibit 24, Appendix
13 24.a-2 - Shadow Impact Assessment Report;
14 Appendix A - Shadow Flicker Hours). Some of the
15 receptors are potentially screened to some
16 extent by existing vegetation. I note that the
17 revised Facilities layout results, as reported
18 in Exhibit 1001.24 - Revision 1, include over 30
19 hours of flicker exposure at several locations.

20 Q. Are there avoidance or minimization measures
21 that can reduce the degree of shadow flicker

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1 exposures?

2 A. The Application provides discussion of potential
3 mitigation measures to address complaints
4 related to flicker exposure, including
5 installation of window shades or landscape
6 vegetation. Applicant's proposed Certificate
7 Condition 57 identifies proposed flicker
8 mitigation measures for complaints. Applicant
9 also proposes a "Shadows Package" Compliance
10 Filing at Attachment A to proposed Certificate
11 Condition that identifies monitoring shadow
12 exposure, "in certain situations...to track actual
13 annual hours and curtail wind turbine
14 operation." These provisions do not provide
15 consideration of limiting exposures exceeding 30
16 minutes daily to avoid or minimize such
17 disturbances at non-participating residences,
18 including the peaceful use and enjoyment of
19 property.

20 Q. Why would you consider limiting exposure to
21 shadow flicker to 30 minutes daily?

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1 A. Exposure to wind turbine shadow flicker has been
2 characterized as an annoyance where it exceeds
3 30 minutes daily or 30 hours annually. (National
4 Regulatory Research Institute, for the National
5 Association of Regulatory Utility Commissioners
6 (NARUC), *Put It There! - Wind Energy & Wind-Park
7 Siting and Zoning Best Practices for States*,
8 2012; available at
9 [http://nrri.org/download/2012-03-put-it-there-
10 wind-energy-and-wind-park-siting-and-zoning-
11 best-practices-and-guidance-for-states/](http://nrri.org/download/2012-03-put-it-there-wind-energy-and-wind-park-siting-and-zoning-best-practices-and-guidance-for-states/)).

12 Applicant CWE has adopted the 30 hours annual
13 criterion as its operational standard for
14 annoyance (Application Ex. 24., pg. 24-3).

15 Q. Are the land use impacts identified potentially
16 significant?

17 A. Yes. The agricultural use impacts will occur on
18 properties of participating landowners; these
19 participating landowners will otherwise benefit
20 from terms of easements and payments for use of
21 the sites. Best management practices are

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1 outlined in the New York State Department of
2 Agriculture and Markets *Guidelines for*
3 *Agricultural Mitigation for Wind Power Projects*,
4 (most recently revised April 19, 2018) and
5 strict application of these provisions under
6 review by a qualified, on-site Agricultural
7 Inspector, will be appropriate for minimizing
8 the long-term effects on agricultural uses of
9 the Facility site parcels.

10 Foreseeable impacts on non-participating
11 residential properties, including shadow flicker
12 (discussed in more detail below), should be
13 considered potential use impacts on properties
14 that are not part of the Facility site and
15 involve non-participant landowners who do not
16 stand to benefit directly from the easements
17 associated with the Facility sites. I recommend
18 that the Siting Board consider appropriate
19 siting and impact controls to minimize impacts
20 of wind turbine operations on those receptors.

21 Q. What design alternatives do you recommend to

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- 1 reduce the identified land use effects?
- 2 A. I recommend continuing efforts to integrate
- 3 micro-siting of turbines, access roads and other
- 4 Facility component locations (as the Applicant
- 5 has already demonstrated in the May 24, 2019
- 6 "updates to CWE's Application"), and use of
- 7 appropriate technologies should be implemented
- 8 in the final Facility design drawings and site
- 9 plans to further avoid and minimize adverse
- 10 effects on resources and uses of properties.
- 11 The adoption of monitoring and control
- 12 technologies for wind turbines to control the
- 13 annual and daily maximum shadow flicker exposure
- 14 at non-participating receptors, along with
- 15 remedial measures implemented as complaint
- 16 responses, should minimize adverse flicker
- 17 effects to the extent practicable.
- 18 Q. How many receptor locations will experience
- 19 shadow flicker exposure?
- 20 A. The Application Update provides estimates based
- 21 on the smallest proposed turbine height and

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1 greatest number of turbines. The Applicant
2 estimates that the smallest-output turbine would
3 expose 81 year-round residences (including 40
4 non-participating) to over 30 hours annually; 16
5 non-participating seasonal residences and two
6 non-participating businesses would have 30 or
7 more hours annual exposure. These and other
8 categories of exposure are listed at
9 Application, Exhibit 15, page 15-13. The
10 Application also considers the potential for
11 cumulative shadow flicker exposure based on
12 existing wind turbines at the Marsh Hill Wind
13 facility and the proposed Eight Point Wind
14 facility.

15 Q. What is your recommendation for minimizing
16 shadow flicker exposure and effect on the use
17 and enjoyment of property for non-participating
18 residences?

19 A. The Siting Board should require as a condition
20 of certificate issuance that shadow flicker
21 mitigation be required for any non-participating

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1 residence where the owner submits a complaint
2 regarding shadows, and expected shadow exposure
3 from the Facility exceeds 30 hours per year or
4 30 minutes per day. I recommend that the shadow
5 flicker mitigation should be as follows: (i)
6 Certificate Holder shall temporarily curtail
7 operation of select wind turbines to limit
8 actual shadow flicker exposure to the 30-hours
9 or less annually, or 30 minutes or less daily,
10 or (ii) Certificate Holder shall mitigate shadow
11 flicker by providing landscape plantings, window
12 treatments, or other shadow-blocking measures.
13 The expected annual shadow flicker exposure
14 shall be established by pre-construction
15 modelling and analysis based on final project
16 design and turbine specifications to be
17 presented in a compliance filing.

18 Q. Has the Applicant made appropriate showings
19 regarding the requirements of Exhibit 13 - Real
20 Property?

21 A. Application Exhibit 13 provides appropriate

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1 information regarding real property interests in
2 the Facility site. The May 24, 2019 Application
3 Update (Exhibit 13, Confidential Figure 13-1)
4 indicates that many parcels critical to Facility
5 development were still in negotiation at the
6 time that the Update was filed. Applicant
7 should make additional showings for properties
8 still in negotiation to demonstrate adequate
9 property rights have been obtained. Final
10 Facility design and development of clearing and
11 construction site plan and related information
12 will need to be based on acquisition of land
13 rights for all Facility components and
14 appropriate showings to demonstrate property
15 rights have been obtained.

16 Q. Does the Application provide an analysis of
17 potential cultural resource impacts from the
18 proposed Facility?

19 A. Yes. The Application, as supplemented and
20 updated, provides an assessment of potential
21 cultural resources including, historic

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1 properties and cemeteries reviewed for
2 architectural or historic significance,
3 archeological resources based on known sites, as
4 well as consideration of survey work at the
5 Facility site, including site walk-over, and
6 test pit excavation and review. The
7 Application, Exhibit 20, and associated
8 appendices and attachments, and May 24, 2019
9 Application Update provides information on the
10 Applicant's surveys and analysis of results.
11 The historic architectural survey includes an
12 inventory of structures and buildings identified
13 by a cultural historian as being 50 years or
14 older, with notes summarizing building
15 architectural style, features, current
16 integrity, and identification of potential
17 significance based on relevant criteria for
18 whether structures and buildings warrant
19 consideration of eligibility for being listed on
20 the State and National Register of Historic
21 Places (NRHP).

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1 Q. Would the proposed construction and operation of
2 the Facility result in any adverse effects on
3 cultural resources?

4 A. Yes. The introduction of wind turbines and
5 meteorological tower(s) will represent visual
6 (and audible) changes to the landscape setting
7 of several properties which are listed or
8 eligible for listing on the NRHP.

9 Q. Have historic resource impacts been established
10 as a consequence of the proposed Facility
11 development?

12 A. Yes, on April 8, 2019, the Director of the
13 Technical Preservation Services Bureau of the
14 State Office of Parks, Recreation and Historic
15 Preservation (OPRHP) issued an opinion that the
16 construction of the Facility turbines will have
17 an *Adverse Effect* on cultural resources. The
18 surrounding rural setting associated with the
19 identified historic resources (letter of John
20 Bonafide, OPRHP (OPRHP Adverse Effect" letter;
21 Ex.____(ACD-3)). This correspondence and related

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1 documents were not provided or described in the
2 Applicant's May 24, 2019, Application Update.

3 Q. What is the next step in cultural resource
4 evaluation and mitigation for the Project?

5 A. For purposes of cultural resources impact
6 minimization and mitigation, the project will
7 need to advance under the National Historic
8 Preservation Act §106 review process as part of
9 federal permitting (by the US Army Corps of
10 Engineers) which supersedes the requirements of
11 New York Parks, Recreation and Historic
12 Preservation Law (PRHPL) §14.09. The SHPO April
13 8, 2019 "*Adverse Effect*" Letter refers to
14 generic project mitigation options identified by
15 CWE; and provides guidance to advancing
16 mitigation plan interests of the affected local
17 communities, such as offset measures that would
18 involve advancing one or more historic
19 preservation initiatives that would serve local
20 interests and resources, which would be advanced
21 in coordination and consultation with local town

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1 and county historians and municipal
2 representatives. This generally involves
3 development of a list of historic preservation
4 priorities, and advancement of specific historic
5 preservation project(s) such as restoration work
6 on historic municipal buildings; development of
7 educational materials; renovation and
8 maintenance of historic cemeteries; and
9 installation of historic markers at sites and
10 properties in the Project viewshed. These
11 examples are typical of the historic resource
12 impact offset mitigation projects undertaken at
13 other wind farm developments in New York State
14 over the past twelve years. I recommend that
15 the Siting Board should require, as conditions
16 of issuance of any Certificate of Environmental
17 Compatibility and Public Need, demonstration
18 that a final mitigation plan has been accepted
19 by OPRHP-SHPO; that funding by the Certificate
20 Holder is provided in the amount of funds
21 committed in the final plan; and that a schedule

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1 and reporting of progress and completion of
2 implementation has been adopted.

3 Q. Are there other cultural resource protection
4 measures that should be implemented?

5 A. Yes, the Siting Board should require conditions
6 including compliance filings/information reports
7 for cultural resource protection and mitigation.
8 Standard archeological resource protection
9 measures that should be adopted as conditions
10 associated with issuance of a Certificate,
11 include: precluding construction in any areas
12 that have not been reviewed and approved for
13 archeologic impact avoidance; measures for
14 stopping work and investigating any
15 unanticipated archeologic or historic
16 archeologic resources identified during
17 construction, including discovery of human
18 remains; and presentation of a final offset
19 mitigation plan for adverse effects on the
20 landscapes comprising the broad settings of
21 historic architectural resources. Recommended

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1 Certificate condition 59, and Required
2 Compliance Filing 19 - SHPO Package - are
3 appropriate for addressing this recommendation.
4 The Application presents some of this
5 information, such as elements of an
6 Unanticipated Discovery Plan, however the SHPO
7 has not yet indicated an acceptance of that
8 plan.

9 Q. Have you reviewed the visual impact assessment
10 for the proposed Facility?

11 A. Yes, I reviewed Application Exhibit 24, and
12 associated Appendices and analysis including the
13 Visual Impact Assessment (VIA).

14 Q. Does the Application address potential visual
15 effects of the proposed Facility?

16 A. Yes. Application Exhibit 24 and supporting
17 documents including a Visual Impact Assessment
18 (VIA) (Application Appendix 24a-1). Viewshed
19 mapping depicts the extent of facilities
20 visibility throughout the study area; photo-
21 simulations demonstrate the general appearance

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1 of the Facility as viewed from several
2 viewpoints representing a range of landscape
3 settings, distance zones, and landscape
4 positions occurring throughout the study area;
5 ratings of contrast and narrative descriptions
6 provide discussion and analysis of the nature of
7 visibility, user groups and likely viewers of
8 the associated facilities of the Project from
9 the viewpoints, and characterization of impacts
10 are provided.

11 Q. Will the proposed Facility result in adverse
12 visual impacts?

13 A. The proposed Facility will include up to 115
14 wind turbines reaching up to nearly 600 feet in
15 height. These tall structures will be visible
16 throughout a large area of the Study Area
17 depending on local topography and tree cover, as
18 documented in the VIA presented in the
19 Application and Application Update. Several
20 visually-sensitive receptor locations, including
21 locations listed or eligible for listing on the

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1 National Register of Historic Places, will have
2 views of the wind turbines.

3 Q. Are there any visual resource locations that
4 were not identified in the Visual Impact
5 Assessment?

6 A. Yes, there is a proposed Scenic Byway
7 designation for portions of NYS Routes 417 and
8 36 in the Project Area. New York State
9 Department of Transportation administers the
10 Scenic Byways program, which recognizes touring
11 routes with scenic and tourism-related
12 amenities. The Routes 417 and 36 corridor
13 traverses through Steuben County from north of
14 the City of Hornell, generally southerly through
15 Canisteo Village and Jasper, continuing easterly
16 to the Village of Addison. Attached Ex.__(ACD-4)
17 is a copy of the NYSDOT Scenic Byways web-page
18 for this proposed route. The proposed Scenic
19 Byway designation is reportedly inactive,
20 without a draft Corridor Management Plan, and no
21 funding mechanism currently available to advance

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1 planning efforts (Department Staff personal
2 correspondence with Christine Colley, NYS DOT;
3 April 30, 2019). Without a Corridor Management
4 Plan for review, there is no criteria for
5 specific evaluation of Project consistency with
6 the goals and objectives or specific scenic
7 areas that are called out for the route of the
8 proposed Scenic Byway. As noted below, the
9 Application VIA addresses two viewpoint
10 locations along the Route 417/36 corridor
11 identified as a proposed Scenic Byway corridor:
12 VP 52 and VP 55 are both located along Route 417
13 in the southeastern portion of the Project Area.

14 Q. Have you identified any errors in the VIA?

15 A. There appears to be three typographical errors
16 in VIA Appendix A: Viewshed Overlay Map. As
17 indicated on attached Exhibit__(ACD-5) - an
18 enlarged excerpt from VIA Appendix A in the
19 southeastern portion of the Project Area. The
20 map includes references to "View from NYS Route
21 123" and "NYS Routes 123 and 21." There is no

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1 road designated as "NYS Route 123" in the
2 project viewshed area as mapped in Appendix A.
3 NYS Route 123 is located in Westchester County,
4 New York. NYS Route 21 originates in the
5 Village of Andover, and follows a south-north
6 orientation through Alfred Station and Hornell,
7 and is located in the far western portion of the
8 10 mile study area, with no visibility of
9 wetland CM-7 likely, due to intervening
10 topography between these locations. The
11 Appendix A: Viewshed Overlay Map figure in the
12 VIA indicates that there will be no visibility
13 of the proposed wind turbines located along
14 Route 21 within the 10-mile viewshed area except
15 for a limited portion in the vicinity of
16 Hornell. I note that Steuben County Routes 21
17 and 123 are located in the vicinity of these
18 wetlands. If this is the case, the Applicant's
19 map should indicate the distinction of County
20 highway routes rather than NYS Routes 21 and
21 123.

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1 Q. What operational effects are represented in the
2 Application?

3 A. Operational effects include consideration of
4 shadow flicker (Application Appendix 24.a-2), as
5 discussed above in consideration of land uses;
6 and since the wind turbines exceed 499 feet in
7 height, the turbines will all need to be marked
8 with aviation hazard lighting, including two
9 flashing warning lights mounted on each of the
10 turbine nacelles.

11 Q. Are these red or white flashing lights?

12 A. The Application indicates that medium intensity
13 flashing red lights will be used, rather than
14 white lights, which would have a greater degree
15 of visibility at night. The Application also
16 states that narrow-beam fixtures will be used to
17 reduce visibility from ground level positions.

18 Q. Is there any alternative to flashing warning
19 lights during all hours of darkness?

20 A. The Application does not address consideration
21 of using radar-activated aircraft detection

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1 lighting controls as an alternative. This
2 technology allows the turbine hazard lighting to
3 normally be turned off, and only be turned on
4 when activated by radar sensors detecting
5 aircraft approaching and passing nearby or over
6 the Facility. Staff recommends that
7 consideration of this measure should be a
8 requirement for any Certificate granted by the
9 Siting Board at this location. This is the only
10 significant reduction measure that I am aware
11 of, other than eliminating wind turbines, that
12 can be applied for general visibility of the
13 Facility, albeit limited to night-time hours,
14 and visual impacts located at the majority of
15 important receptor locations spread throughout
16 the projected viewshed area. Other options are
17 likely to be offset measures. The Applicant
18 should be required to evaluate the use of radar-
19 activated lighting controls, thus minimizing the
20 extent of aviation hazard marking pursuant to
21 Clause 40(c) of its proposed Certificate

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1 Conditions, whereby Applicant proposes to
2 minimize aviation hazard lighting to the extent
3 allowable by the Federal Aviation Administration
4 (FAA). Otherwise, lighting requirements
5 recommended by Department Staff and reflected in
6 Applicant proposed Certificate Condition 50
7 should also be required.

8 Q. Are the conclusions reached in the VIA supported
9 by the analysis as presented?

10 A. The VIA generally presents a reasonable
11 depiction and characterization of the likely
12 appearance of the proposed generating Facility
13 from a range of viewpoints. Some reviewers may
14 disagree with the impact ratings applied by the
15 Applicant's visual review panelists, and there
16 are likely some viewpoints that may be of
17 particular interest that are not specifically
18 included in the VIA. However, the intent of the
19 VIA is for a representative assessment
20 identifying and addressing potential impacts on
21 the range of landscape types, user-groups, and

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1 distance zones in the Study Area.

2 Q. What visual impact mitigation measures does the
3 Application identify as viable?

4 A. The Application provides statements regarding
5 measures that would be implemented to reduce
6 visual impacts in the landscape (Application
7 Book 5; Appendix 24a.; VIA, pp. 145 - 148).

8 These measures include some that are based on
9 best management practices, and others that are
10 standard wind turbine designs (e.g., non-
11 reflective surface finish; white or off-white
12 color; tubular turbine towers design; no
13 advertising or logos on wind turbines).

14 Q. Does Staff agree with the Applicant's visual
15 impact "mitigation" measures?

16 A. Staff recommends that these measures are readily
17 available and some measures are standard
18 features on modern turbines. Other measures
19 that are generally applied include:
20 decommissioning and removal of facilities at the
21 end of their useful life, as otherwise generally

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1 required by local laws and PSL Article 10
2 regulations; use of appropriate lighting
3 controls, as described below, will be
4 appropriate pursuant to compliance filing
5 recommendations by Staff; and other measures
6 should be adopted as requirements of any Siting
7 Board grant of a Certificate.

8 Certain other measures require additional
9 consideration, specifically exterior lighting
10 proposed for the collection substation site, the
11 Operation and Maintenance (O&M) Building, and at
12 each wind turbine.

13 Q. Has the applicant proposed a satisfactory
14 lighting plan showing?

15 A. No. Applicant proposes design criteria and a
16 compliance filing, but does not provide the
17 level of detail appropriate for assuring
18 lighting is sufficient but also avoids
19 unnecessary lighting, glare or light trespass.
20 For example, Applicant proposed lighting plan
21 criteria for the O&M building and substation

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1 including full cutoff fixtures (Application
2 Exhibit 11, pp. 11-16). However, the lighting
3 cut-sheets provided by the Applicant are for
4 lighting which includes flood lights (one of the
5 most intrusive lighting designs available) (see
6 Application Ex. 11, Figure 11-2 and 11-3); and
7 poorly-shielded lights with drop-down optics
8 that spread light horizontally and expose the
9 lighting filament to direct visibility, which is
10 the primary cause of glare (see Application Ex.
11 11, Figure 11-1). Full-cutoff lighting fixtures
12 without drop-down optics, if appropriately
13 sourced, installed and maintained, direct
14 lighting downward, rather than horizontally
15 outward, and avoid glare and light trespass by
16 limiting light emissions to the direction in
17 which they are useful. However, the Applicant
18 has not presented a lighting plan that utilizes
19 these considerations. Staff generally advises
20 against motion-detection lighting controls.
21 Staff recommends that an exterior lighting

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1 design be specified to avoid off-site lighting
2 effects, by the use of task lighting, as
3 appropriate, to perform specific tasks with
4 manual on-off switching, rather than using
5 photo-sensitive or motion-detecting, that are
6 susceptible to false operation due to movement
7 of wind-blown debris and vegetation, or wild
8 animal movement near the site or along fence-
9 lines. Exterior lighting should be designed to
10 provide safe working conditions at appropriate
11 locations during periods. Applicant's recently
12 provided Proposed Certificate Condition 50
13 includes appropriate requirements that include
14 exterior lighting appropriate for various sites,
15 including use of full cutoff fixtures with no
16 drop-down optical elements for area lighting at
17 the O&M site and at outdoor storage areas to
18 avoid both the spread of illumination and the
19 creation of glare; use of manually controlled
20 task lighting where appropriate. A lighting
21 specification detail and plan and profile

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1 arrangement should be required to be submitted
2 as a compliance filing for final review and
3 approval pursuant to 16 NYCRR Parts 1002.2 and
4 1002.3. Applicant has proposed as a required
5 compliance filing the "FAA and Exterior Lighting
6 Package" (Proposed Certificate Conditions,
7 Attachment A) which is generally acceptable,
8 however the Applicant asserts that this filing
9 "must be approved before energization of the
10 collection substation with electricity from the
11 grid (backfeed)." I recommend that the filing
12 be submitted well before that time, since it
13 includes lighting to be located within the
14 Project Substation. Lighting design should be
15 provided with the site plan for the substation
16 to assure that appropriate clearances are
17 accounted for in station design.

18 Q. Does the Application Exhibit 31 provide an
19 analysis of local legal provisions applicable to
20 the proposed Facility, as required under 16
21 NYCRR §1001.31?

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1 A. Yes. The Application Exhibit 31 generally
2 complies with the requirements of 16 NYCRR
3 §1001.31. The Application provides a review and
4 listing of local laws, procedural and
5 substantive provisions, and indicates that all
6 substantive requirements have been addressed by
7 the proposed development.

8 Q. What is Staff's recommendation regarding local
9 laws?

10 A. The Application, as supplemented in the May 1,
11 2019 Update filing, addresses the required
12 showings for Exhibit 31. The original
13 Application had requested Siting Board waivers
14 of certain requirements including height
15 restrictions for the Town of Troupsburg Local
16 Law #1 of 2012 (Application Exhibit 31, pg. 6).
17 Department Staff submitted a discovery request
18 for an evaluation of appropriate setback
19 distances applicable to wind turbine heights
20 that as proposed would exceed the Town Wind Law
21 limit. In response, CWE indicated that the Town

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1 was reviewing and updating its wind project law
2 (Ex. __ (ACD-6) DPS-IR-04). The May 1, 2019
3 Update provides the amended and updated Town of
4 Troupsburg Local Law Number 1 of 2019, which
5 eliminated the height restriction, and adopted
6 setback distances that were a function of
7 turbine blade tip height, rather than a set
8 distance. With the revision in the local law,
9 and the project update that was later provided
10 in the May 24, 2019 Application Update, the need
11 for waiver of the height restriction was
12 eliminated, as indicated in the May 1, 2019
13 Update.

14 While that issue has apparently been resolved,
15 the May 24, 2019 Update presents a new issue.
16 Exhibit 31 was revised to state that "CWE does
17 not seek Siting Board override of any local laws"
18 (Ex. 31, Section 31.e, pg. 6). Exhibit 6 was
19 revised with discussion of various criteria that
20 would require turbine heights to be limited at
21 certain locations to meet property line setbacks

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1 of the various town codes (May 24, 2019 Update;
2 Ex. 6, section 6.b.1 through 6.b.5; pp. 6-3
3 through 6-6). Section 6.b.6, however, was not
4 revised, that part still states "[d]epending on
5 the final turbine selection and layout, CWE may
6 request the Siting Board not apply the setback
7 requirements of those local laws in the contexts
8 described." The Applicant's proposal regarding
9 resolution of this issue is not clear. The
10 Applicant has not provided justification for the
11 potential waiver requests as required by 16 NYCRR
12 1001.31; and it has not provided an indication as
13 to when and under what circumstances such waiver
14 requests for the local laws of multiple
15 municipalities would be submitted for Siting
16 Board consideration.

17 Q. Does the Application address compliance with
18 relevant New York State laws?

19 A. Yes. Exhibit 32 adequately addresses State Laws
20 applicable to the proposed Facility.

21 Q. Does this conclude your pre-filed direct

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1 testimony regarding impacts of the proposed
2 Canisteo Wind Project at this time?
3 A. Yes, generally, although I also provide
4 testimony in conjunction with the Staff Policy
5 Panel, including supporting specific recommended
6 Certificate Conditions appropriate for
7 requirements that should be associated with any
8 Certificate issued by the Siting Board.

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2 A.L.J. LEARY: Any objections? Okay.
3 It's so admitted. As a housekeeping matter, what we
4 were doing yesterday, was to try to identify on our
5 exhibit list and where -- where these exhibits --

6 MS. VIGARS: The exhibits.

7 A.L.J. LEARY: -- are.

8 MS. VIGARS: Yes.

9 A.L.J. LEARY: Do you have that --

10 MS. VIGARS: I'm opening the document,
11 as we speak -- the master exhibit list. So, this is
12 D.P.S., Davis, these are pre-marked as Exhibits 64,
13 65, 66, 67, 68 and 69.

14 A.L.J. LEARY: So, that -- those are
15 the hearing exhibit numbers associated with Mr.
16 Davis's --

17 MS. VIGARS: Mr. Davis's individual
18 testimony, that's correct.

19 A.L.J. LEARY: -- individual testimony
20 and what about the Panel's. Do they have some
21 exhibits?

22 MS. VIGARS: Yes. The Panel Exhibits
23 are pre-marked 95, 96 and 97.

24 A.L.J. LEARY: Thank you. Mr. Dax?

25 MR. DAX: Thank you.

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2 MS. VIGARS: Excuse me, Your Honor.

3 A.L.J. LEARY: Oh, I'm sorry.

4 MS. VIGARS: Could we go through the
5 process of admitting into the record --

6 A.L.J. LEARY: Accepting testimony.

7 MS. VIGARS: -- the policy panel?

8 A.L.J. LEARY: Yes.

9 MS. VIGARS: Thank you.

10 A.L.J. LEARY: Sorry.

11 MS. VIGARS: Just bear with me one
12 second.

13 BY MS. VIGARS: (Cont'g.)

14 Q. Mr. Davis, before you is a
15 document entitled, Prepared Testimony of Staff Policy
16 Panel, submitted by Andrew Davis, Jeremy Floum and
17 Aaron Odell Keller. That document consists of a
18 cover page and 26 pages of questions and answers,
19 dated July 12th, 2019, with three exhibits, labeled
20 S.P.P.-1 through S.P.P.-3, is that correct?

21 A. That's correct.

22 Q. Was this testimony and exhibits
23 prepared by you or under your direct supervision?

24 A. The testimony was prepared by the
25 -- by the Policy Panel represent -- or

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 representatives. To the extent that I'm on the
3 Panel, yes. They're -- they're -- it's not entirely
4 or exclusively my testimony.

5 Q. I understand.

6 A. It -- it involves testimony by
7 the other two Policy Panel members.

8 A.L.J. SHERMAN: Mr. Davis, could you
9 pull the mic, you're rather soft spoken? Thank you.

10 BY MS. VIGARS: (Cont'g.)

11 Q. However, there are portions of
12 the D.P.S. Staff Policy Panel testimony, that were
13 prepared by you or under your direct supervision, is
14 that correct?

15 A. That's correct.

16 Q. Do you have any changes or
17 corrections to make to that testimony?

18 A. No, I do not.

19 Q. Aside -- excuse me; strike that.

20 If you were asked the same questions
21 today, under oath, would you answer them the same
22 way?

23 A. Yes.

24 Q. And, do you affirm the
25 information contained in the testimony and exhibits

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 to be true, to the best of your knowledge?

3 A. Yes, it is.

4 MS. VIGARS: Your Honor, I would like
5 to move that the pre-filed initial testimony of the
6 Staff Policy Panel and exhibits of the Staff Policy
7 Panel, be entered into the record as if given orally
8 during the hearing today.

9 A.L.J. LEARY: Any objections? So
10 admitted.

11 MS. VIGARS: Your Honors, the witness
12 is now available for cross examination.

13 A.L.J. LEARY: Mr. Dax?

14 MR. DAX: I'm handing out two
15 interrogatory responses that were received from the
16 Policy Panel. They are Items 192 and 193 on the --
17 on the exhibit list. They are responses to
18 C.W.E.D.P.S. -- -D.P.S.-02. That's Item 192 and the
19 response to C.W.E.D.P.S.-03.

20 A.L.J. LEARY: These are not in D.M.M.
21 and you are seeking to have them admitted?

22 MR. DAX: Yes, I would like to have
23 them marked as -- for identification, I believe, as
24 Exhibits 215 and 216.

25 A.L.J. LEARY: So, we will mark D.P.S.

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 Response to Discovery Request, C.W.E.D.P.S.-2, Policy
3 Panel Experience, dated July 31st, 2019 as Exhibit
4 214.

5 MS. PAULSEN: Your Honor, I believe
6 Exhibit 214, is D.E.C. Response to Discovery Request,
7 C.W.E.D.E.C.-1.

8 A.L.J. LEARY: So, it should be 215?
9 You are right, Ms. Paulsen. Mr. Dax, you're giving
10 me bad information.

11 MR. DAX: I said two -- I actually
12 said 215 and 216.

13 A.L.J. LEARY: Oh, I'm sorry. I said
14 214 because I looked over here and 213 was on top.
15 So, we will mark D.P.S. Response to Discovery
16 Requests, C.W.E.D.P.S.-3; Administrative and Standard
17 Conditions as 216 -- Hearing Exhibit 216.

18 CROSS EXAMINATION

19 BY MR. DAX:

20 Q. Mr. Davis, have you -- did they
21 make their way around to you?

22 A. I've got them.

23 Q. And -- and, do you recognize
24 these?

25 A. I recognize them, yes.

1 16-F-0205 - Canisteo Wind Energy - 8-21-19

2 Q. And, I -- I note that the --
3 Exhibit 215, has a -- in the signature line, it says
4 Policy Panel, whereas in 216, there is no -- there's
5 no signature by the Policy Panel but was that
6 prepared by the Policy Panel, the Response to C.W.E.-
7 D.P.S.-03?

8 A. It was prepared by members of the
9 Policy Panel but not me.

10 Q. Okay. Not you but --.

11 A. No, I was on vacation when these
12 were received and answered.

13 Q. Do you -- is the answer, to the
14 best of your knowledge, accurate?

15 A. Yes.

16 Q. And, do -- do you accept the
17 answer as the answer to the -- the -- the questions
18 posed in C.W.E.-D.P.S.-03?

19 A. The answers answer the questions,
20 yes.

21 Q. And -- and, with respect to
22 Exhibit 215, the same questions, do you accept the
23 answers as truthful answers to the questions?

24 A. I -- I accept they are the
25 answers that are submitted by Staff, yes.

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2 MR. DAX: Your Honor, I'd ask that --
3 I move that the Exhibits 215 and 216 be moved into
4 evidence, based on the testimony.

5 A.L.J. LEARY: Any objections? Okay.
6 They're so admitted.

7 MR. DAX: Nothing further, Your Honor.

8 A.L.J. LEARY: Well, that was easy.

9 MS. VIGARS: Your Honor, I do have one
10 brief redirect.

11 A.L.J. LEARY: Redirect. Okay.

12 REDRECT EXAMINATION

13 BY MS. VIGARS:

14 Q. Mr. Davis, I'm going to direct
15 your attention to Exhibit -- what's been marked as
16 Exhibit 215.

17 A. Okay.

18 Q. Is there any additional
19 information -- strike that.

20 Do you have any experience with
21 utility scale wind energy generating projects, beyond
22 -- as specified in this I.R. question, beyond
23 participating and managing or manage of construction?

24 A. Yes, I do.

25 Q. Can you explain what that

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2 experience entails?

3 A. The -- I'd like to refer to
4 what's been marked as Exhibit 64, attached to my
5 testimony was my personal professional curriculum
6 vitae which lists a number of projects that I've been
7 involved in reviewing for the Department before
8 either the Public Service Commission and the -- or
9 the Siting Board on electric generating and the
10 environment. There's approximately 25 wind projects
11 that I've, over the past 13 to 15 years, been
12 involved in environmental assessment, review of
13 permitting standards and issuance of -- or made
14 recommendations to the Public Service Commission and
15 the Siting Board, in terms of appropriate
16 environmental and management controls that should be
17 administered, as part of any certification for
18 construction and operation.

19 Q. You detailed your experience as
20 Staff to the Department. Do you have any experience
21 with these types of facilities beyond your employment
22 with the Department?

23 A. No, I do not.

24 Q. Okay.

25 MR. VIGARS: Thank you.

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2 A.L.J. LEARY: Thank you. I have one
3 -- go ahead Mr. Davis.

4 THE WITNESS: In addition to that
5 permitting reviews, I've also made inspections of
6 different aspects of construction and operation of
7 exist -- of wind farms that were construct -- under
8 construction and/or operation, to review impacts and
9 to assess compliance with approvals and Department or
10 Siting Board commissioning -- excuse me, certi--
11 certification requirements.

12 MS. VIGARS: Is there anything further
13 you'd like to add?

14 THE WITNESS: No.

15 MS. VIGARS: Okay.

16 A.L.J. LEARY: And --

17 THE WITNESS: Just general --

18 MS. VIGARS: Just -- thank you.

19 A.L.J. LEARY: And, the -- that last,
20 I believe the question posed was outside of your
21 responsibilities with the Department. Is the answer
22 you just gave, within your responsibilities as an
23 employee of the Department or in the private sector?

24 THE WITNESS: I have -- I have not
25 done any work in the private sector on wind farms and

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 those inspection and reporting experiences I
3 summarized, are as part of my professional
4 responsibilities under -- with the Department.

5 A.L.J. LEARY: Thank you. I do have a
6 question and it's a clarifying one and it's not on
7 the Policy Panel testimony. It is on Mr. Davis's
8 resource related and it is on Page Four, in which you
9 -- Line 16, in which you say the number of specific
10 wind turbine sites, exceeds the number of sites that
11 would need to be developed, particularly if the
12 larger output wind turbines identified in the May
13 24th, 2019 application update are specified. I am --
14 I heard a little bit about this yesterday but could
15 you explain what that sentence means, with a little
16 bit more detail?

17 THE WITNESS: If a question -- the
18 question preceding that answer is, does the
19 application adequately identify the location of
20 proposed project facilities? And, my answer is that
21 there's just -- the application describes the
22 environmental setting and potential impacts in -- of
23 the locations of all the turbine sites but that the
24 proposed turbines include a range of generation
25 output or capacity, which if larger turbines are

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 used, then fewer sites are needed.

3 A.L.J. LEARY: So, it is your
4 understanding that there -- there will be fewer sites
5 needed or it's -- we -- you cannot tell, based upon
6 the information you have?

7 THE WITNESS: I don't -- I don't know
8 which of the specific sites that are proposed for
9 approval, will ultimately be developed. Some -- we
10 heard discussion yesterday on this topic, about 55 or
11 was it more than that out of the 117 that had been
12 studied.

13 A.L.J. LEARY: So, what makes you
14 think that the entire 117 will not be -- 117 sites
15 will not be developed?

16 THE WITNESS: I guess it's my
17 observation that the general trend in the industry is
18 towards larger output turbines and the Applicant
19 specifically in its May 28th or 30th, depending on
20 what document you look at, submittal of the
21 application update, identified a significantly larger
22 output turbine. I assume that the Applicant's very
23 interested in that model.

24 A.L.J. LEARY: Thank you. Anyone have
25 any additional questions, based upon me opening this

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 door for clarification?

3 Thank you very much Mr. Davis. You
4 may step down. Okay.

5 Where's my list? I think we're going
6 with D.E.C. Bats first.

7 MS. PAULSEN: That's fine.

8 A.L.J. LEARY: Well, is it just Ms.
9 Denoncour?

10 MS. PAULSEN: Yes, just Ms. Denoncour.

11 A.L.J. LEARY: Okay. Will she
12 approach? Ms. Denoncour, you were sworn in as a
13 witness yesterday and I just want to remind you that
14 you continue to be under oath. I don't need to swear
15 you in again.

16 THE WITNESS: Okay.

17 A.L.J. LEARY: Thanks.

18 MS. PAULSEN: And, for the record,
19 it's Ms. Denoncour's birthday, so Happy Birthday.

20 A.L.J. LEARY: Happy Birthday.

21 THE WITNESS: Thanks.

22 DIRECT EXAMINATION

23 BY MS. PAULSEN:

24 Q. Ms. Denoncour, did you prepare
25 testimony, regarding bats for this proceeding that

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 was filed on July 12th, 2019?

3 A. Yes.

4 Q. Did you make corrections to your
5 testimony, that were filed on August 9th, 2019?

6 A. Yes.

7 Q. Do you have any further
8 corrections to your testimony?

9 A. No.

10 Q. If I were to ask you the same
11 questions today, would you give the same answers, as
12 contained in the pre-filed testimony?

13 A. Yes, I would.

14 Q. Are you sponsoring any exhibits
15 to your testimony?

16 A. Yes.

17 Q. What are those exhibits?

18 A. There's a list of references that
19 we used in our direct testimony and the resume for
20 myself and Carl.

21 MS. PAULSEN: One moment. And, Your
22 Honor, the exhibits referenced by Ms. Denoncour, are
23 proposed Hearing Exhibits 51, 52 and 53.

24 A.L.J. LEARY: Thank you.

25 BY MS. PAULSEN: (Cont'g.)

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2 Q. Ms. Denoncour, do you affirm that
3 your testimony and sponsored exhibits, are truthful
4 and accurate, to the best of your knowledge?

5 A. Yes.

6 MS. PAULSEN: Your Honors, at this
7 point, I'd like to move the pre-filed testimony of
8 the D.E.C. Bats Panel and its sponsored exhibits into
9 evidence.

10 A.L.J. LEARY: Any objections? It's
11 so admitted.

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**NEW YORK STATE BOARD ON ELECTRIC GENERATION
SITING AND THE ENVIRONMENT**

In the Matter of the Application of

Canisteo Wind LLC

Case No.: 16-F-0205

for a Certificate of Environmental Compatibility
and Public Need Pursuant to Article 10 to
Construct a Wind Energy Project.

**DIRECT TESTIMONY OF
BRIANNA DENONCOUR AND HEIDI KENNEDY**

Division of Fish and Wildlife
New York State Department of Environmental Conservation

July 12, 2019

Case No. 16-F-0205

DENONCOUR & KENNEDY

1

WITNESS INTRODUCTION2 **Q. What is the first witness' name, employer, title and business address?**

3 A. My name is Brianna Denoncour. I am employed by the New York State Department
4 of Environmental Conservation (NYSDEC or Department) in the Division of Fish and
5 Wildlife, Bureau of Ecosystem Health (formerly known as the Bureau of Habitat) as a
6 Wildlife Biologist and Avian Ecologist. I have been in this position for 14 years. I currently
7 work in the NYSDEC Central Office, Albany, New York.

8 **Q. What is the first witness' educational background, experience, and**
9 **professional certifications?**

10 A. Please see a copy of my resume marked as NYSDEC-DK-1.

11 **Q. What is the second witness' name, employer, title and business address?**

12 A. My name is Heidi Kennedy. I am employed by the NYSDEC in the Division of
13 Fish and Wildlife, Bureau of Wildlife as a Wildlife Biologist (Biologist 1 Ecology). I have
14 been in this position for approximately 16 years. I began working for the NYSDEC in 2001
15 as a Habitat Biologist in the Division of Fish and Wildlife, Bureau of Ecosystem Health
16 (formerly known as the Bureau of Habitat), and I moved to my current position in 2003. I
17 currently work in the NYSDEC Region 8 Iroquois sub-office, 1101 Casey Road, Basom,
18 New York.

19 **Q. What is the second witness' educational background, experience, and**
20 **professional certifications? and professional certifications?**

21 A. Please see a copy of my resume marked as NYSDEC-DK-2.

1 **Q. What are your collective responsibilities at the Department?**

2 A. As Wildlife Biologists, we assist in the programmatic oversight for the State's
3 statutory and regulatory threatened and endangered species programs. In this capacity, we
4 oversee the implementation of Article 11 of the Environmental Conservation Law (ECL)
5 (Article 11), and its implementing regulations set forth in Part 182 of Title 6 of the Official
6 Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) (Part
7 182). Included in this oversight is the review of Article 11 permit applications, as well as
8 compliance with the requirements of Article 11 for projects reviewed under Article 10 of
9 the Public Service Law (Article 10) and the Department's assessment of potential and
10 realized impacts to birds and bats at wind and solar energy projects.

11 **Q. Ms. Denoncour, what is your experience regarding rare, threatened and**
12 **endangered species and review of proposed wind energy projects?**

13 A. I coordinate the Department's review of potential impacts that major wind and solar
14 energy development projects have on wildlife and terrestrial habitats, including State-listed
15 birds, bats, grasslands, and forests. This is for projects reviewed under Article 10 as well
16 as those reviewed under the State Environmental Quality Review Act (SEQRA).

17 I have reviewed several proposed wind energy projects that included a Part 182
18 permit application for impacts to State-listed threatened and endangered species. I worked
19 on the Hounsfield Wind Farm Part 182 permit and provided testimony as an expert witness
20 in several Article 10 proceedings regarding impacts to threatened and endangered species.
21 I have also been involved in developing protocols for conducting surveys targeting State-

1 listed breeding and wintering grassland bird species, and I drafted and oversaw the release
2 and implementation of the *Guidelines for Conducting Bird and Bat Studies at Commercial*
3 *Wind Energy Projects* (2009, revised 2016) (Guidelines).

4 **Q. Ms. Kennedy, what is your experience regarding rare, threatened and**
5 **endangered species and review of proposed wind energy projects?**

6 A. As a Wildlife Biologist specializing in non-game birds, I am responsible for
7 reviewing projects with potential impacts to threatened and endangered species, primarily
8 marsh birds and grassland birds, in NYSDEC Region 8. I have reviewed several wind
9 energy and other development projects that may have impacts on wildlife and their habitats,
10 including State-listed threatened and endangered birds and their nesting, foraging and
11 wintering habitat. My review has included Article 10 projects as well as those reviewed
12 under SEQRA.

13 I have also been involved in habitat management and restoration to benefit a variety
14 of species, including rare, threatened and endangered species such as grassland birds. In
15 addition, I am a member of the Department's Grassland Bird Conservation Strategy Team
16 and the Bird and Mammal Diversity Team's Grassland Bird sub-team. As part of these
17 teams I have worked on planning efforts for grassland bird conservation in the State, the
18 development of protocols for conducting surveys targeting State-listed breeding and
19 wintering grassland bird species, and on the development of best management practices for
20 managing grassland habitats on State Wildlife Management Areas.

21 **Q. What is the purpose of your testimony?**

1 A. The purpose of our testimony is to provide an overview of the State's threatened
2 and endangered species program and, specifically, how the ECL, implementing
3 regulations, and responsibilities regarding the protection of wildlife should be applied
4 when assessing, avoiding, minimizing, and mitigating the impacts of wind energy projects
5 on grassland bird species.

6 Our testimony will: 1) provide background regarding the biology and behavior of
7 grassland birds; 2) summarize existing literature regarding the impact of wind projects on
8 grassland birds; and 3) identify certain State-listed species, listed in accordance with
9 Article 11 and the implementing regulations found at Part 182, that could be impacted by
10 the proposed Canisteo Wind Energy Project (Project). In that context, we will discuss: (i)
11 the factors the Department considers in making regulatory determinations pursuant to the
12 applicable statutes and regulations; (ii) how these factors apply to the Project; and (iii)
13 whether the Project has met the applicable State standards.

14 We are advised by Department Counsel that the threatened and endangered species
15 program, with its attendant statutory and regulatory authority, applies to the Project, as
16 proposed, and to the Siting Board's deliberations and required findings pursuant to Article
17 10. Accordingly, our testimony discusses how the Siting Board must apply the State's
18 statutory and regulatory threatened and endangered species program to ensure the Project's
19 compliance with Article 11 and its implementing regulations set forth in Part 182, and how
20 the Siting Board should apply the same to its deliberations and required findings under
21 Article 10 should it decide to approve the Project.

1 **Q. What information has provided the basis for your testimony?**

2 A. Our testimony is based on the Project application – specifically Exhibit 22 and
3 corresponding Appendices - submitted by Canisteo Wind, LLC (Applicant) on November
4 2, 2018, together with Exhibit 22 related supplemental filings filed on January 28, 2019
5 and May 24, 2019, (collectively, the Application). We have also reviewed documents and
6 materials included in a list of references relied upon for this testimony, which is attached
7 hereto as NYSDEC-DK-3. We have reviewed all the above-referenced materials in the
8 context of ensuring that the Project meets the requirements of Article 11 and Part 182. We
9 also visited the Project Area on June 11, 2019 and June 27, 2019 to view the current
10 condition of habitat in areas with documented threatened and endangered species
11 occurrences and reviewed the Department’s databases for relevant threatened and
12 endangered species information.

13 **BIOLOGY AND BEHAVIORS OF GRASSLAND BIRDS**

14 **Q. What is a general description of grassland birds?**

15 A. Grassland birds consist of those species that rely on open habitats lacking in tall
16 trees, extensive shrub cover, and human infrastructure – such as grasslands, hayfields,
17 pastures, fallow fields, and wet meadows – to successfully perform one or more essential
18 life functions including feeding, nesting, roosting, wintering and migrating.

19 **Q. What is the biology and behavior of grassland birds in general?**

20 A. Grassland birds breed and winter, depending on the species, within large grassland
21 fields spread across the State. Different species vary in their preferences for the various

1 habitat characteristics found within grassland field types. Most species require large
2 (greater than 25 acres) expanses of open habitat, generally free of large trees, hedgerows,
3 tall structures such as power poles, wind turbines, or meteorological towers, houses, busy
4 roads, or other human disturbances (Dechant et.al., 2002; Peterson, 1983; Morgan and
5 Burger, 2008; Smith and Smith, 1992). To successfully breed, some species require 80-100
6 acres or more of quality open habitat (Peterson, 1983; Environment Canada, 2013).
7 Vegetation, including grasses, sedges, some forbs, as well as agricultural crops such as hay
8 and alfalfa, provide cover for nesting, foraging, and roosting. While monocultures of corn,
9 soybeans, and other row crops are not preferred nesting habitat for most grassland birds,
10 these agricultural activities are often in place on a rotational basis on the landscape. Such
11 fields provide suitable nesting habitat when planted with hay, alfalfa, or left fallow for one
12 or more years following the presence of row crops.

13 **Q. Are grassland bird species a particular conservation concern in New York**
14 **State?**

15 **A.** Yes. Quality grassland habitat is a cover type that requires regular maintenance and
16 is declining in New York State, and grassland bird species have been declining faster than
17 any other habitat-species suite in the northeastern United States (Vickery and Herkert,
18 2001; Morgan and Burger, 2008; Ribic et.al., 2009; Stevens et.al., 2013). The primary
19 cause of these declines is abandonment of agricultural lands, causing habitat loss as once
20 open areas revert to later successional stages of shrub and young forest cover. Some other
21 threats to grassland bird species on the landscape include habitat fragmentation, mortality

1 incurred during summer agricultural activities, predation by wild and domestic animals,
2 parasitism by brown-headed cowbirds (*Molothrus ater*), and human disturbance (Norment,
3 et.al., 2010; Brennen and Kuvlesky, 2005). Stabilizing the declines of populations of
4 grassland birds has been identified as a conservation priority by virtually all bird
5 conservation initiatives, groups, and agencies in the northeastern United States, as well as
6 across the continent (Vickery and Herkert, 2001; Brennan and Kuvlesky, 2005).

7 As a result of this conservation concern and habitat loss, Grassland Focus Areas
8 were developed based on Breeding Bird Atlas data collected between 2000 and 2004
9 (Morgan and Burger, 2008; McGowan and Corwin, 2008). These Focus Areas are intended
10 to help identify areas in the State where conservation actions would be most effective in
11 benefiting grassland bird species. The Project is proposed in Grassland Focus Area 2, the
12 Southern Tier Grassland Focus Area.

13 **Q. What species of grassland birds are of particular conservation concern in New**
14 **York State?**

15 A. There are two species of grassland birds in New York State listed as endangered:
16 short-eared owl (*Asio flammeus*), and loggerhead shrike (*Lanius ludovicianus*); four
17 species listed as threatened: northern harrier (*Circus hudsonius*), upland sandpiper
18 (*Bartramia longicauda*), sedge wren (*Cistothorus platensis*), and Henslow's Sparrow
19 (*Centronyx henslowii*); and three species considered species of special concern: horned lark
20 (*Eremophila alpestris*), vesper sparrow (*Pooecetes gramineus*), and grasshopper sparrow
21 (*Ammodramus savannarum*). All of these species are considered species of greatest

1 conservation need, as are the following three grassland bird species: American kestrel
2 (*Falco sparverius*), bobolink (*Dolichonyx oryzivorus*) and eastern meadowlark (*Sturnella*
3 *magna*) (NYSDEC, 2015).

4 **Q. What threatened and endangered, species of special concern, and species of**
5 **greatest conservation need grassland bird species have been documented in the**
6 **Project area during surveys performed in support of the Application?**

7 A. Two State-listed threatened and endangered grassland bird species have been
8 observed on the proposed Project site: northern harrier and short-eared owl. Three
9 grassland bird species designated as species of special concern have also been observed in
10 the Project site: horned lark, vesper sparrow and grasshopper sparrow. Three grassland bird
11 species of greatest conservation need have been observed in the Project site: American
12 kestrel, bobolink, and eastern meadowlark.

13 **Q. Do you have any comments on the surveys conducted in support of the**
14 **Application?**

15 A. Yes. One 2018 breeding bird survey transect (■■■■) was located within Henslow's
16 Sparrow occupied habitat, however, it was sited in a narrow opening between forested
17 patches where Henslow's sparrows are less likely to be found. It is unclear why a transect
18 identified as "pasture/hay" and allegedly intended to target Henslow's Sparrows was
19 positioned close to forested habitat (20-30 meters). Open areas to the west and south of
20 ■■■■ contain fewer trees and more contiguous grassland appropriate for use by Henslow's
21 Sparrows.

1 **Q. What threatened and endangered, species of special concern, and species of**
2 **greatest conservation need grassland bird species have been documented in the**
3 **Project Area during other surveys, and reported in the Application?**

4 A. In addition to grassland bird species observed while conducting studies in support
5 of the Application, the following have also been documented in the Project Area during
6 the breeding season through the NYS Breeding Bird Atlas (BBA), US Geological Survey
7 Breeding Bird Survey (BBS), and recent eBird records: Northern Harrier (BBA, BBS,
8 eBird); American kestrel (eBird); upland sandpiper (BBA, eBird); horned lark (BBA, BBS,
9 eBird); bobolink (eBird); eastern meadowlark (eBird); Henslow's Sparrow (BBA, BBS);
10 grasshopper sparrow (BBA, BBS, eBird); and vesper sparrow (BBA, eBird).

11 **Q. What threatened and endangered, species of special concern, and species of**
12 **greatest conservation need grassland bird species have been documented in the**
13 **Project Area by the Department or other sources not included in the Application?**

14 A. Northern Harrier, Henslow's sparrow, grasshopper sparrow, American kestrel,
15 bobolink, and eastern meadowlark.

16 **Q. Which of these species will your testimony focus on?**

17 A. Our testimony will focus on Northern Harriers and Henslow's Sparrows, as they
18 are State-listed threatened species observed in the Project area that are likely nesting and
19 breeding in the Project area. See NYSDEC-DK-4; NYSDEC-DK-5; and NYSDEC-DK-6.

20 **Q. What is the biology and behavior of Henslow's Sparrows?**

1 A. Henslow's Sparrows are one of the rarest grassland bird species in New York State
2 (NYSDEC, 2015), with the second Breeding Bird Atlas in New York State documenting
3 an 80% decline in the number of blocks with records compared to the first Breeding Bird
4 Atlas (McGowan and Corwin, 2008). Henslow's Sparrows are area-sensitive and prefer
5 large open fields with tall, dense vegetation, a well-developed litter layer, some standing
6 dead vegetation, and a low woody stem density (Herkert, 1998). Henslow's sparrows are
7 often loosely colonial, with territory size averaging 0.18-0.7 hectares (0.4-1.7 acres)
8 (Herkert, et.al. 2018).

9 **Q. What is the documented biology and behavior of Henslow's Sparrow within**
10 **the Project area?**

11 A. Henslow's Sparrows were documented during grassland bird surveys conducted by
12 NYSDEC Staff as part of ongoing monitoring of grassland bird use at managed grasslands.
13 During these surveys at a site along [REDACTED] within the Project area, one individual
14 Henslow's Sparrow was documented on 6/24/2015 (morning survey) and two individuals
15 were documented on both 7/8/2015 (evening survey) and 7/17/2015 (morning survey). The
16 timing, behavior, and number of observations suggest that Henslow's Sparrow nested and
17 bred on the Project site. The fields where observations were made, and the surrounding
18 fields, consist of high-quality grassland habitat managed for Henslow's sparrows and other
19 grassland bird species. In addition, Henslow's Sparrows were documented on the Project
20 site during the BBA as a probable breeder in 2003, and they have also been documented
21 during BBS routes near the Project site.

1 **Q. What is the biology and behavior of Northern Harriers?**

2 A. Northern Harriers breed, winter and migrate throughout most of New York State
3 (NYSDEC, 2015). Northern Harrier have large territories, and they require expansive areas
4 of open grassland and marshes for nesting and foraging (NYSDEC, 2015; Wilson et.al.,
5 2015). Northern Harrier were considered a widespread and common breeder in New York
6 until the mid-1950's. Northern Harrier usually fly slowly and low over the ground, their
7 wings held in a V-shape as they glide. Most males have either one mate or two mates at a
8 time, but some have up to five mates when food is abundant. Males court the females and
9 advertises their territory by performing sky-dancing displays: undulating, rollercoaster-like
10 flights up to 1,000 feet off the ground, sometimes covering more than half a mile (Cornell
11 Lab of Ornithology, 2017).

12 **Q. What is the documented biology and behavior of Northern Harriers on the**
13 **Project site?**

14 A. One Northern Harrier was documented incidentally at transect [REDACTED] during the 2018
15 Breeding Bird survey. Multiple Northern Harriers were also documented during the 2014
16 fall migratory bird survey (5 observations during September/October), large bird survey
17 (45 observations between August 2017 and July 2018), and during the 2014-2015 eagle
18 observation surveys (19 observations).

19 Additionally, as documented by NYSDEC, in 2005 both an individual female and
20 a pair were observed during the breeding season in fields in the vicinities of [REDACTED]
21 and [REDACTED] on the Project site. NYSDEC grassland bird surveys also documented

1 a female Northern Harrier at the [REDACTED] site on two separate occasions during the
2 breeding season of 2016. In addition, the second Breeding Bird Atlas has records of both
3 confirmed and probable Northern Harrier breeding, and Northern Harriers have been
4 observed during multiple Breeding Bird Survey routes.

5 **Q. Do Northern Harrier and Henslow's Sparrow utilize the Project site in the**
6 **same manner?**

7 A. Not entirely. Though both species depend on open areas of grassland, there are
8 some differences in what each species require for successful breeding. Henslow's Sparrows
9 require tall, dense grassy areas with some residual litter and standing dead vegetation
10 during the breeding season. For Henslow's Sparrows, individual territories are relatively
11 small, but they are area-sensitive, and large field sizes are required (Herkert, 1994; Herkert,
12 et.al. 2018). Northern Harriers require large expanses of contiguous open grassland or
13 marshy areas for foraging, tall, denser cover for nesting and roosting, and unobstructed air
14 space for performing aerial courtship displays. Northern Harriers return to the same general
15 area in subsequent years for breeding, particularly if they are successful in raising young.

16 **Q. What are your observations and professional judgements regarding the**
17 **grassland habitat in the Project Area based on your site visits?**

18 A. The majority of the areas we visited consisted of unmowed hayfields, pasture fields,
19 and fallow fields with various mixtures of grasses and forbs. It was late morning/early
20 afternoon, and while no threatened and endangered grassland bird species were observed,
21 we detected several other grassland bird species. There were large expanses of habitat

1 suitable for breeding Henslow's Sparrows and Northern Harriers, both within areas where
2 these species have previously been documented, and elsewhere throughout the Project
3 Area. It is highly probable that these species, and possibly other threatened and endangered
4 grassland bird species, are present during the current breeding season.

5 **IMPACTS TO GRASSLAND BIRDS**

6 **Q. Are grassland birds – including Henslow's Sparrows and Northern Harriers**
7 **– impacted by wind turbine facilities?**

8 A. Yes. There are documented direct and indirect impacts to grassland birds from both
9 construction and operation of wind turbine facilities, specifically: (i) direct impact by
10 collision with wind turbines and other project infrastructure; (ii) direct impact to habitat by
11 the placement of project components in occupied habitat; and (iii) indirect impact by
12 displacement of grassland bird species from otherwise preferred areas of habitat from both
13 the presence of tall structures and construction activity.

14 **Q, How will the Project, as proposed, impact Northern Harrier and Henslow's**
15 **Sparrow?**

16 A. The Department has determined that construction and operation of the Project will
17 result in both direct and indirect loss of occupied Henslow's Sparrow and Northern Harrier
18 habitat. Further, without proper work windows, Project construction may impact
19 Henslow's Sparrow and Northern Harrier individuals.

20 **Q. What does occupied habitat mean?**

1 A. Occupied habitat means the areas where Henslow's Sparrows and Northern
2 Harriers have been documented exhibiting essential behaviors, as described above. See
3 NYSDEC-DK-7.

4 **Q. Does the Project, as proposed, contain any components in occupied grassland**
5 **habitat?**

6 A. Yes. There are 9 turbines, access roads, and a permanent met tower located within
7 Northern Harrier and Henslow's Sparrow occupied habitat. See NYSDEC-DK-7.

8 **Q. What is known about the displacement of grassland birds due to tall**
9 **structures, such as wind turbines?**

10 A. Most grassland bird species prefer an unobstructed view of the horizon and are
11 disturbed by tall structures in the vicinity of their nesting, foraging and roosting areas, and
12 they may utilize otherwise quality habitat to a lesser degree once such structures are present
13 (Shafer and Buhl, 2015; Pearce-Higgins et.al., 2012; Stevens et.al., 2013, Smith and Smith,
14 1992; Peterson, 1983). Indirect impacts to grassland birds caused by the presence of wind
15 turbines or other tall structures include displacement from otherwise suitable habitat,
16 decreased nesting success, and changes in foraging behavior, with several studies
17 evaluating these impacts (Leddy et.al., 1999; Madders and Whitfield, 2006; Pearce-
18 Higgins et.al., 2009; Wilson et.al., 2015).

19 **Q. Can you further explain the impacts to grassland birds during Project**
20 **construction?**

1 A. In areas occupied by grassland bird species for breeding, foraging or wintering,
2 construction activities are likely to prevent individuals from utilizing the area to perform
3 these critical life functions. Increased human presence, traffic, noise, ground disturbance,
4 and erection of tall structures may disrupt birds' normal activities. Nests or roosts may be
5 destroyed or otherwise directly impacted by construction activities that disturb the ground
6 at and around such areas.

7 **Q. Do you have any further comments on the availability of information**
8 **regarding wind energy facility impacts on grassland birds?**

9 A. Long-term impacts of wind energy projects on the persistence of breeding and
10 wintering grassland bird species on the landscape is understudied. However, several
11 investigators have found increased bird densities with increasing distance from turbines
12 (Leddy et.al., 1999; Shafer and Buhl, 2015; Bay et.al., 2015). In addition, several studies
13 have found lower overall abundance and densities of grassland birds near turbines several
14 years after the start of project operation than prior to construction or immediately following
15 construction (Garvin et.al., 2011; Shafer and Buhl, 2015; Stantec Ltd., 2014; Stewart et.al.,
16 2007). Overall, most studies conducted show indirect impacts of turbines on grassland
17 birds, but the drivers behind such avoidance are not well studied, and much more research
18 is needed (Garvin et.al., 2011; Smith and Dwyer, 2016; Stevens et.al., 2013).

19 To date, no currently operating wind energy project in New York State has been
20 issued an incidental take permit for grassland birds under Part 182. The majority of those
21 operating wind energy projects conducted only 1-2 years of post-construction monitoring,

1 with an emphasis on mortality monitoring, and some evaluation of displacement/avoidance
2 impacts on breeding birds (NYSDEC, 2016). Changes in abundance and density of birds
3 at wind energy projects are unlikely to be adequately detected during studies conducted
4 only in the first 2-5 years after project construction (Madders and Whitfield, 2006; Stewart
5 et.al., 2007). Douglas et.al., (2011) recommends post-construction surveys occur in years
6 1, 2, 3, 5, 10, and 15 after the start of project operation to monitor long-term impacts to
7 grassland birds and account for annual fluctuations in populations. Multiple years of post-
8 construction monitoring over the course of a wind energy project's lifetime are required to
9 sufficiently evaluate the long-term direct and indirect impacts on breeding and wintering
10 grassland birds, particularly State-listed threatened and endangered species. It should be
11 noted that the Guidelines were developed to provide a broad overview of total bird and bat
12 fatality rates at a given site. The scope, duration, and methods described in the Guidelines
13 are not adequate for determining if a Project has impacted a threatened and endangered
14 species. The Department seeks post-construction wildlife monitoring for the Project that
15 will be designed to address questions regarding more species-specific impacts and provide
16 statistically-sound assurances that permitted levels of take are not exceeded.

17 **APPLICATION OF PART 182 TO THE PROJECT**

18 **Q. Does Part 182 apply to the Project?**

19 A. Yes. As previously mentioned in this testimony, Henslow's Sparrow and Northern
20 Harrier are State-listed threatened species that have been observed multiple times at the
21 Project site. Based on the presence of suitable habitat, the documentation of multiple

1 individuals, the dates of observations during the breeding season, and information
2 supporting the potential impacts from Project operation and construction on Henslow's
3 Sparrow and Northern Harrier, we conclude that the Project poses a threat to these species.
4 Therefore, Part 182 applies to the Project.

5 **Q. How does Part 182 apply to the Project?**

6 A. Part 182 first requires that the Applicant avoid all impacts to threatened and
7 endangered species, in this case Henslow's Sparrows and Northern Harriers. If such
8 impacts cannot be fully avoided based on a showing by the Applicant that full avoidance
9 is impracticable, then the Applicant is required to minimize impacts to Henslow's Sparrows
10 and Northern Harriers to the maximum extent practicable. If impacts are demonstrated to
11 be unavoidable, the Applicant must provide appropriate and effective mitigation, resulting
12 in a net conservation benefit to Henslow's Sparrows and Northern Harriers, as discussed
13 in more detail below.

14 **Q. How does the Applicant estimate the potential impacts to Henslow's Sparrows**
15 **and Northern Harriers from the Project?**

16 A. The Applicant has not fully addressed the potential impacts of the Project on
17 Henslow's Sparrows and Northern Harriers likely to be breeding in the Project area.

18 **Q. What is required under Part 182 regarding avoidance and minimization of**
19 **take of listed species or their habitat, specifically Henslow's Sparrow and Northern**
20 **Harrier?**

1 A. Part 182 first requires that the Applicant avoid all impacts to threatened and
2 endangered species, in this case Henslow's Sparrows and Northern Harriers, to the
3 maximum extent practicable. The Department's preferred outcome in all cases is avoidance
4 of adverse impacts to protected resources, including threatened and endangered species.

5 If an applicant can demonstrate that full avoidance of impacts to Henslow's
6 Sparrows and Northern Harriers is impracticable, appropriate minimization measures and
7 mitigation are required under Part 182 to achieve a net conservation benefit to the impacted
8 species. Uncertainty about the success of proposed mitigation approaches is unavoidable
9 and, as a result, every effort should be made to first avoid and minimize any direct impacts
10 to Henslow's Sparrows and Northern Harriers. If full avoidance of impacts is demonstrated
11 by an applicant to not be practicable, the Department will work with the applicant on its
12 proposal to first minimize direct impacts to the maximum extent practicable before
13 mitigation is adopted. However, the burden is on the applicant to propose and accomplish
14 effective and successful minimization.

15 Construction Impacts: The best way to avoid construction-related impacts to
16 threatened and endangered grassland bird species is to design a project such that all
17 infrastructure, construction activities, and other disturbances occur outside of occupied
18 grassland habitats. If project impacts must occur in occupied grassland habitat, direct
19 impacts to individuals of a listed species can be avoided if all work is done outside of the
20 time periods during which birds may be present in the area. Due to the breeding time period
21 for grassland bird species, to avoid direct construction-related impacts to breeding

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1 threatened and endangered grassland bird species, no ground clearing, construction
2 disturbances, non-emergency maintenance, or restoration activities may occur in occupied
3 habitat between April 23 and August 15. As it relates to the Project, impacts are likely to
4 occur to breeding Henslow's Sparrow and Northern Harrier, which requires all ground
5 disturbance activities in occupied habitat to occur outside the window of April 23 to August
6 15.

7 Operational Impacts: Some actions to avoid indirect impacts to listed grassland bird
8 species from operation of a wind energy project include: placing project infrastructure at
9 least 250 meters (m) away from any edge of all occupied habitat; co-locating infrastructure
10 as much as possible; and performing non-emergency maintenance and restoration activities
11 outside of the time periods during which birds are present on site, as described above.
12 Siting all project components as far away from the centers of grassland habitat, open fields,
13 and marshes as possible will minimize impacts to grassland bird species due to the presence
14 of tall structures.

15 **Q. Does the Project, as proposed, avoid adverse impacts to Henslow's Sparrow**
16 **and Northern Harrier as required by Part 182?**

17 A. No. The Project as proposed includes turbines and other infrastructure sited in
18 habitat occupied by Henslow's Sparrow and Northern Harrier, and disturbance activities
19 have not been proposed to occur only during times that will avoid construction impacts to
20 the species during the breeding season.

1 **Q. Does the Project, as proposed, minimize, to the maximum extent practicable,**
2 **adverse impacts to Henslow's Sparrow and Northern Harrier as required by Part**
3 **182?**

4 A. No. The Application does not discuss the siting of Project components in relation
5 to occupied threatened and endangered species habitat, including removing all or some of
6 the infrastructure from those areas, and the Application does not contain proposed
7 construction and disturbance dates that will avoid or minimize disturbance to Henslow's
8 Sparrows and Northern Harriers.

9 **Q. How can the Project, as proposed, avoid operational impacts to Henslow's**
10 **Sparrows?**

11 A. The removal of Turbine [REDACTED] and associated access roads from the Project
12 layout, or relocation of [REDACTED] to an area greater than 250 meters from the edge of the
13 Henslow's Sparrow occupied habitat. See NYSDEC-DK-7.

14 **Q. How can the Project, as proposed, avoid operational impacts to Northern**
15 **Harriers?**

16 A. The removal of Turbines [REDACTED],
17 [REDACTED] from the Project layout, or the relocation of all such facilities
18 to an area greater than 250 meters from the edge of occupied habitat. See NYSDEC-DK-
19 7.

20 **Q. How can the Project, as proposed, minimize operational impacts to Northern**
21 **Harriers?**

1 A. The removal of some, but not all, of the Project components described above
2 (Turbines [REDACTED])
3 [REDACTED] from the Project layout, or the relocation of some, but not at all, of such Project
4 components to an area greater than 250 meters from the edge of occupied habitat. See
5 NYSDEC-DK-7.

6 **Q. What is required under Part 182 regarding potential mitigation options for**
7 **unavoidable take of State-listed species that occurs after all practicable minimization**
8 **measures are implemented, specifically Henslow's Sparrow and Northern Harrier?**

9 A. After an applicant has avoided or minimized impacts to a listed species to the
10 maximum extent practicable, Part 182 requires mitigation for projects that are reasonably
11 expected to result in the take of listed species or their habitat. The Department has
12 calculated the amount of occupied habitat impacted by the Project for which mitigation is
13 required by using the methodology described below.

14 The Part 182 standards require that the project, in total, must provide a net
15 conservation benefit to the impacted species. While the Department does not itself issue
16 Part 182 permits for projects subject to Article 10 review, this same standard applies to
17 such project, including to the Project in the instant proceeding. This means that the
18 expected impacts to the affected species must be completely offset by proposed mitigation
19 such that it is reasonable to expect that the species will be at least as stable as it was before
20 the action was taken. To meet this requirement, if an applicant has demonstrated that full
21 avoidance is impracticable and implemented all necessary and appropriate minimization

1 measures to the maximum extent practicable, then a mitigation measure must be reasonably
2 expected to have a positive impact on the species and not just exceed the calculated loss of
3 animals or habitat.

4 Part 182 does not specifically speak to species-specific mitigation. If avoidance
5 cannot practically be achieved, and an applicant and NYSDEC agree upon minimization
6 measures to be implemented, the Department encourages a potential applicant to propose
7 one or more measures that are likely to result in a net conservation benefit to the affected
8 species. In general, a mitigation measure must either demonstrably and reliably reduce the
9 impact of an existing threat to the species or proactively increase the productivity or
10 abundance of the species or its habitat. For a mitigation measure to be accepted as meeting
11 the definition of net conservation benefit, the implementation of the action should be
12 reasonably expected to successfully provide the necessary benefits. Below we provide a
13 description of mitigation actions that the Department could potentially accept as mitigation
14 for take of Henslow's Sparrow and Northern Harrier. These descriptions do not necessarily
15 preclude the Department from considering other, valid proposals for mitigation.

16 **Q. How should the Applicant develop a mitigation and implementation plan?**

17 A. Ideally, mitigation actions are developed through consultation with, and approved
18 by, the Department, implemented, and shown to be successful prior to the impactful action
19 occurring. If it is not practicable to implement mitigation and achieve a net conservation
20 benefit before an impact occurs, then a mitigation plan and implementation plan must be
21 developed with, and approved by, the Department prior to the impact occurring, and

1 financial and legal assurances must be in place to ensure the mitigation action will occur
2 and net conservation benefit be achieved. A finalized mitigation plan demonstrating a net
3 conservation benefit to Henslow's Sparrows and Northern Harriers, and an implementation
4 plan, both approved by the Department, are required before the Project is constructed.

5 **Q. What is the most widely accepted mitigation measure for unavoidable**
6 **Henslow's Sparrow and Northern Harrier impacts?**

7 A. Conserving or creating quality grassland habitat and managing the lands with
8 Department-recommended best management practices is the most widely accepted
9 mitigation action for achieving a net conservation benefit to grassland bird species,
10 including Henslow's Sparrow and Northern Harrier. This can be accomplished by working
11 with local conservation groups or land trusts, or buying the land outright. When managing
12 fields for grassland birds, the location, the timing of mowing, the amount of thatch, and the
13 vegetative makeup of the field are important characteristics that must be considered
14 (Morgan and Burger, 2008; NYSDEC, 2018). The size and shape of the fields being
15 considered for mitigation purposes, as well as the habitat types in the overall landscape
16 surrounding the mitigation areas, are also of great importance.

17 **Q. Do Henslow's Sparrow and Northern Harrier require the same type of**
18 **mitigation?**

19 A. Though Henslow's Sparrow and Northern Harrier each require different habitat
20 characteristics, both need large expanses of grassland habitat regularly managed to
21 maintain a vegetative structure beneficial to each of these species. While the specific

1 management actions differ between Henslow's Sparrow and Northern Harrier, the
2 Department is willing to accept a combined mitigation action for both species. Such
3 mitigation must include land management activities appropriate for creating or maintaining
4 habitat suitable for use by both species and on a schedule that does not disrupt breeding,
5 foraging, wintering, or other essential behaviors.

6 **Q. Is the Department willing to accept other mitigation measures for Henslow's**
7 **Sparrow and Northern Harrier?**

8 A. Yes, provided that the proposed mitigation measures demonstrate a net
9 conservation benefit and comply with Part 182 standards.

10 **PROJECT SPECIFIC PART 182 MITIGATION**

11 **Q. How many acres of Henslow's Sparrow and Northern Harrier occupied**
12 **habitat will be directly and indirectly impacted by the Project, as proposed?**

13 A. As discussed below, a total of 380 acres of breeding habitat occupied by Henslow's
14 Sparrow and Northern Harrier will be impacted by the Project as proposed. See NYSDEC-
15 DK-7.

16 **Q. How did you determine the areas of occupied Henslow's Sparrow and**
17 **Northern Harrier habitat?**

18 A. We determined approximate acreage of occupied habitat for Henslow's Sparrows
19 and Northern Harriers by evaluating records maintained by the Department of documented
20 presence of Henslow's Sparrow and Northern Harrier in the Project area during the
21 breeding period (late-April through mid-August). These records are based on information

1 submitted to Natural Heritage Program by Department staff or other entities containing
2 observations of Henslow's Sparrow and Northern Harrier during the breeding season, with
3 individuals detected on multiple occasions and/or multiple individuals detected. The
4 Department defines occupied habitat of Henslow's Sparrow and Northern Harrier as all
5 open areas greater than 25 acres that occur within each occupied habitat area. Any direct
6 or indirect impacts to such occupied habitat from the construction, operation, restoration
7 or non-emergency maintenance of the Project within these areas is considered a take of
8 occupied habitat.

9 **Q. How did you quantify the amount of occupied Henslow's Sparrow and**
10 **Northern Harrier habitat that is impacted by the Project?**

11 A. Based on our literature review of grassland bird displacement distances, to quantify
12 the amount of occupied habitat impacted by the Project, we first placed a radial buffer
13 around each type of project component as follows: two hundred fifty meters (250m) around
14 each turbine; one hundred eighty meters (180m) around each met tower; one hundred
15 meters (100m) around the substation; and ten meters (10m) around each road. Taller
16 structures were given a greater buffer distance. It was assumed that all electric collection
17 lines will be buried. For any collection line that will remain above ground, a 10m buffer
18 will be applied, and the amount of impacted occupied habitat and required area for
19 mitigation must be adjusted accordingly. These buffers account for an estimated distance
20 at which grassland bird species may be displaced from preferred habitat (i.e., indirect

1 taking of occupied habitat) by a tall structure or other infrastructure (Pearce-Higgins et.al.,
2 2009; Leddy et.al., 1999; Wilson et.al, 2015; Shafer and Buhl, 2015; Wilson et.al., 2015).

3 Any Project component and associated buffer area that fell entirely outside of the
4 occupied habitat areas were not further considered as causing an impact to Henslow's
5 Sparrows and Northern Harriers. We determined the total acreage of all open areas that
6 were greater than 25 acres in size and that fell within the buffer area around Project
7 components located within or partially within the occupied habitat areas. This equals
8 approximately 304 acres (40 acres for Henslow's Sparrow and 264 acres for Northern
9 Harrier). An additional 76 acres (20.5 for Henslow's Sparrow and 55.5 for Northern
10 Harrier) of grassland within the occupied habitat areas will be impacted as a result of
11 effective field size around a Project component being reduced to less than 25 acres by the
12 presence of infrastructure and surrounding buffers. The sum of these two areas is 380 acres,
13 being the amount of occupied habitat impacted by the Project.

14 **Q. What must the Applicant do to adequately mitigate these direct and indirect**
15 **impacts to Henslow's Sparrow and Northern Harrier occupied habitat to result in a**
16 **net conservation benefit?**

17 A. To achieve a net conservation benefit in this instance, an equivalent of 1,140 acres
18 of quality grassland habitat must be protected and managed to mitigate for impacts to the
19 habitat of Henslow's Sparrow and Northern Harrier.

20 **Q. How did you calculate the amount of land required for mitigation?**

1 A. To calculate the amount of land that must be mitigated for, we first applied a 3:1
2 ratio to the amount of impacted occupied habitat. This equates to 1,140 acres (380 acres
3 multiplied by 3) needed to mitigate for impacts to breeding Henslow's Sparrow and
4 Northern Harrier habitat.

5 The 3:1 ratio for calculating the amount of mitigation required to offset impacts to
6 breeding threatened and endangered grassland bird species accounts for the possibility that
7 the target species may not colonize the mitigation area and successfully rear young.
8 Creating new breeding habitat or managing grassland not currently occupied by threatened
9 and endangered species, particularly if areas are intended for use by multiple species that
10 may have differing habitat requirements, has inherent uncertainty in the success of such
11 mitigation. Henslow's Sparrow and Northern Harrier require large, contiguous areas of
12 quality grassland habitat for foraging and successful nesting, and a 3:1 ratio better ensures
13 that enough suitable habitat is made available to provide a net conservation benefit for
14 impacts to these species.

15 **Q. How can an equivalent of 1,140 acres of quality, managed grassland habitat to**
16 **mitigate for impacts to the Henslow's Sparrow and Northern Harrier habitat be**
17 **achieved?**

18 A. The Department is not stating that the Applicant must acquire 1,140 acres at the
19 onset of the Project and continue to maintain it for the life of the Project to achieve a net
20 conservation benefit. Rather, the net conservation benefit can be accomplished by
21 conserving and properly maintaining a lesser amount of land for the life of the Project. The

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1 total amount of land and time that it must be managed depends on several factors, including
2 the: (i) existing condition of the target parcel(s) to be managed (whether currently in a
3 condition suitable for use by the target species, or need to be restored to quality grassland
4 condition); (ii) expected amount of time it would take, absent management, for grassland
5 habitat in the area to transition to a condition that is predominately unsuitable for use by
6 the target species (years of habitat suitability) (for this Project, the Department has
7 determined this to be five years based on various factors such as soil types, hydrology,
8 species of ground cover, average temperature, distance to forest edge, which dictate how
9 long a given field will remain suitable habitat); and (iii) number of years the Project is
10 expected to be operational (life of the Project).

11 All such lands must be protected by a legal agreement that allows for the
12 requirements of the net conservation benefit plan to be fulfilled, such as owning the land
13 in fee or conservation easement, as described above. This land must be managed to benefit
14 both Henslow's Sparrows and Northern Harriers for the amount of time required to achieve
15 a net conservation benefit through the management and acquisition, conservation, creation,
16 and/or restoration of an equivalent of 1,140 acres.

17 **Q. Can you offer any examples of what you have described above?**

18 A. Below are some examples illustrating a possible approach for mitigating impacts to
19 Northern Harrier and Henslow's Sparrow at the Project. The actual number of acres
20 requiring management, the full duration of time management activities will be required on
21 those acres, and the frequency of management during that time frame will depend on the

1 size, shape, condition, and location of mitigation parcel(s), as well as the life of the Project.
2 The Department will work with the Applicant to determine these values while the
3 Applicant develops a final net conservation benefit plan for the Department's approval.

4 Ex. 1: For a project with a 30-year life, habitat suitability duration of 5 years, and
5 1,140 acres of required mitigation, 228 acres of land must be managed for 30 years. This
6 is determined by dividing the life of the project by the years of habitat suitability to derive
7 the number of "successional lifecycles" during the project lifetime. This is reduced by one,
8 to account for no net conservation benefit occurring during the first "lifecycle." The result
9 is then divided into the total required mitigation acreage.

10 30 years divided by 5 years = 6 lifecycles

11 6 lifecycles minus 1 period = 5 lifecycles

12 1,140 acres divided by 5 lifecycles = 228 acres

13 Ex. 2: For a project with a 20-year rated life, habitat suitability duration 5 years,
14 and 1,140 acres of required mitigation, 380 acres of land must be managed for 20 years.

15 20 years divided by 5 years = 4 lifecycles

16 4 lifecycles minus 1 period = 3 lifecycles

17 1,140 acres divided by 3 lifecycles = 380 acres

18 **Q. What is the Department's preferred mitigation to the Project, as proposed, for**
19 **unavoidable impacts to Henslow's Sparrows and Northern Harriers?**

20 A. The Department's preferred mitigation for impacts to Henslow's Sparrows and
21 Northern Harriers is the protection and management of existing grassland habitat on or

1 within close proximity to the Project site, following Department-recommended best
2 management practices. The entirety of all mitigation lands must be located greater than 250
3 meters from the nearest existing or proposed wind turbine. The Department prefers
4 mitigation areas to be as contiguous as possible and will work with the Applicant to
5 determine the appropriate size, shape, number, and location of the mitigation area(s) for
6 the Project. The Department has determined that a minimum of one contiguous area not
7 less than 100 acres in size is required, and mitigation areas less than 25 acres in size will
8 not be accepted. The management and maintenance of quality grassland habitat must occur
9 for a sufficient duration of time and result in a net conservation benefit to Henslow's
10 Sparrows and Northern Harriers.

11 **Q. Does the Project, as proposed, provide for mitigation and a net conservation**
12 **benefit as required by Part 182?**

13 A. No. The Application does not propose any mitigation for impacts to listed grassland
14 bird species.

15 **PROPOSED CERTIFICATE CONDITIONS**

16 **Q. What would your recommended Proposed Certificate Conditions include with**
17 **respect to threatened and endangered species?**

18 A. In order to ensure that the Project complies with the requirements of Article 11 and
19 Part 182, and to ensure the other benefits described above, Department staff, including us,
20 recommend the following Proposed Certificate Conditions related to impacts to threatened

1 and endangered grassland birds be included in any Article 10 Certificate issued by the
2 Siting Board for the Project:

3 **Plans and Reports**

- 4 • A final Net Conservation Benefit Plan shall be prepared in consultation with and
5 accepted by NYSDEC and meeting the requirements of Part 182. The final,
6 NYSDEC-accepted Net Conservation Benefit Plan shall be filed no more than two
7 months after issuance of a Certificate by the Siting Board and prior to Project
8 construction. At minimum the Net Conservation Benefit Plan shall contain:
- 9 ○ a demonstration that the mitigation actions described will result in a positive
10 benefit to Northern Harrier (*Circus hudsonius*) and Henslow's Sparrow
11 (*Centronyx henslowii*), and not just an offset for any potential take of
12 individuals;
 - 13 ○ detailed net benefit calculations based on the actual location and type of
14 minimization and mitigation measures to be taken;
 - 15 ○ the location(s) and size of the mitigation parcel(s);
 - 16 ○ proof of access to and right to perform land management activities on the
17 mitigation site(s);
 - 18 ○ identification of all persons that will be involved in implementing the Net
19 Conservation Benefit Plan, with individuals responsible for funding and
20 implementing the plan clearly identified;

- 1 ○ the signatures of all persons that will be involved in implementing the Net
- 2 Conservation Benefit Plan;
- 3 ○ the management and maintenance actions required to achieve net
- 4 conservation benefit for impacted species;
- 5 ○ a schedule for undertaking these activities;
- 6 ○ an appropriate post-construction monitoring program to determine the
- 7 effectiveness of the mitigation;
- 8 ○ adaptive management options and next steps to be implemented if the
- 9 permitted level of take is exceeded; and
- 10 ○ a letter of credit or other financial guarantee securing the Applicant's ability
- 11 to execute such management, maintenance and monitoring for the 30-year
- 12 life of the Project.
- 13 • A Post-Construction Avian and Bat Monitoring and Adaptive Management Plan
- 14 (Monitoring Plan) shall be prepared in consultation with and approved by
- 15 NYSDEC. The final, NYSDEC-preapproved Monitoring Plan shall be filed prior
- 16 to the start of project operation. The Monitoring Plan shall include direct impact
- 17 fatality studies, habituation/avoidance studies, breeding bird surveys and include
- 18 details of these studies (i.e., the start date, number and frequency of turbine
- 19 searches, search area, bat monitoring, duration and scope of monitoring, methods
- 20 for observational surveys, reporting requirements, etc.) and be based in part on
- 21 NYSDEC's June 2016 *Guidelines for Conducting Bird and Bat Studies at*

1 *Commercial Wind Energy Projects*. The *Guidelines* will be adapted as needed to
2 design a work plan for surveys capable of adequately detecting displacement
3 impacts, rare events and impacts to listed species.

4 **Construction Requirements**

- 5 • All ground disturbance, tree clearing, construction, restoration,
6 equipment/component storage, and non-emergency maintenance activities in
7 occupied grassland habitat shall occur between August 16 and April 22.
- 8 • All temporary disturbance or modification of grassland habitat that occurs at any
9 time of year as a result of construction or maintenance activities shall be restored
10 to pre-existing grassland habitat conditions by re-grading and re-seeding with an
11 appropriate native seed mix after disturbance activities are completed. These areas
12 will include, but are not limited to, temporary roads, material and equipment staging
13 and lay-down areas, crane and turbine pads, and electric line rights of way.

14 **Notifications**

- 15 • During construction, maintenance, and operation of the Facility, the Certificate
16 Holder shall maintain a record of all observations of New York State threatened
17 and endangered species and species of special concern, as follows:
 - 18 ○ Construction: During construction the onsite environmental monitors and
19 environmental compliance manager identified in the Environmental
20 Compliance Manual shall be responsible for recording all observations of
21 threatened and endangered species and species of special concern. All

1 observations shall be reported in the bi-weekly monitoring report submitted
 2 to the NYSDPS and NYSDEC and shall include the information described
 3 below under Reporting Requirements. If a threatened and endangered avian
 4 species or avian species of special concern is demonstrating breeding
 5 behavior it will be reported to the NYSDEC Region 8 Natural Resources
 6 Supervisor (NRS) and the NYSDEC Central Office Project Manager (PM)
 7 within twenty-four (24) hours;

8 ○ Post-construction: During post-construction wildlife monitoring
 9 inspections, the environmental contractor shall be responsible for recording
 10 all observations of threatened and endangered species and species of special
 11 concern. Observations of threatened and endangered species and species of
 12 special concern during wildlife surveys shall be reported as required in the
 13 post-construction monitoring and adaptive management plan;

14 ○ Operation and Maintenance (O&M): During O&M the certificate holder
 15 shall be responsible for training O&M staff to focus on successfully
 16 identifying the following bird species: bald eagle (*Haliaeetus*
 17 *leucocephalus*), golden eagle (*Aquila chrysaetos*), short-eared owl (*Asio*
 18 *flammeus*), northern harrier (*Circus hudsonius*), Henslow's Sparrow
 19 (*Centronyx henslowii*); and upland sandpiper (*Bartramia longicauda*). The
 20 certificate holder shall report all observations to the Region 8 NRS and
 21 Central Office PM within one week of the event;

- 1 ○ Reporting Requirements: All reports of threatened and endangered species
2 and species of special concern shall include the following information:
3 species; number of individuals; age and sex of individuals (if known);
4 observation date(s) and time(s); GPS coordinates of each individual
5 observed (if operations and maintenance staff do not have GPS available
6 the report should include the nearest turbine number and cross roads
7 location); behavior(s) observed; identification and contact information of
8 the observer(s); and the nature of and distance to any project construction,
9 maintenance or restoration activity; and
- 10 ○ If at any time during the life of the Project any dead, injured or damaged
11 federally or State-listed threatened and endangered species and species of
12 special concern, or their parts, eggs, or nests are discovered within the
13 Project Area (defined for the purpose of this condition as leased land or
14 property parcels containing Project components) by the Certificate Holder,
15 its designated agents, or a third party that notifies the Certificate Holder, the
16 Certificate Holder shall immediately (within twenty-four (24) hours)
17 contact the Region 8 NRS and Central Office PM (and United States Fish
18 and Wildlife Service (USFWS), if federally listed species) to arrange for
19 recovery and transfer of the specimen(s). The following information
20 pertaining to the find shall be recorded: species; age and sex of the
21 individual(s), if known; the date of discovery of the animal or nest;

1 condition of the carcass, or state of the nest or live animal; the GPS
2 coordinates of the location(s) of discovery; the name(s) and contact
3 information of the person(s) involved with the incident(s) and find(s);
4 weather conditions for the previous forty-eight (48) hours; photographs,
5 including scale and of sufficient quality to allow for the later identification
6 of the animal or nest; and, if known, an explanation of how the
7 mortality/injury/damage occurred. Each record shall be kept with the
8 container holding the specimen(s) and given to NYSDEC or USFWS at the
9 time of transfer. If the discovery is followed by a non-business day, the
10 Certificate Holder shall ensure all the information listed above is properly
11 documented and stored with the specimen(s). Unless otherwise directed by
12 NYSDEC or USFWS, after all information has been collected in the field,
13 the specimen(s) will be placed in a freezer, or in a cooler on ice until
14 transported to a freezer, until it can be retrieved by the proper authorities.

15 • *Northern Harrier, Short-eared Owl, Upland Sandpiper, and Henslow's Sparrow:*

16 If at any time during construction or operational life of the Project, a nest or roost
17 of a northern harrier, short-eared owl, upland sandpiper, or Henslow's Sparrow is
18 located, or if any of these species are observed in the Project Area exhibiting
19 breeding or roosting behavior, the Central Office PM and Region 8 NRS will be
20 notified within twenty-four (24) hours of discovery or observation, and prior to any
21 disturbance around the nest, roost, or area where these species were seen exhibiting

1 any breeding or roosting behavior. An area at least six hundred sixty (660) feet in
2 radius around the nest(s) or roost(s) of these species will be posted and avoided.
3 The nest(s) or roost(s) will not be approached under any circumstances, and the
4 660-foot avoidance area will remain in place until notice to continue construction,
5 ground clearing, grading, maintenance or restoration activities at that site is granted
6 by the Region 8 NRS.

7 • *Other State-Listed Species:* Excluding bald eagles, northern harriers, short-eared
8 owls, upland sandpipers, and Henslow's Sparrows if at any time during
9 construction or operational life of the Project a nest of any federally- or State-listed
10 threatened or endangered bird species is discovered within the Project Area, the
11 Central Office PM and Region 8 NRS shall be notified within twenty-four (24)
12 hours of discovery, and prior to any disturbance to individuals and occupied
13 habitats, including nests. An area of at least five hundred (500) feet in radius around
14 the nest will be posted and avoided. The nest will not be approached under any
15 circumstances, and the 500-foot avoidance area will remain in place until notice to
16 continue construction, ground clearing, grading, maintenance or restoration
17 activities at that site are is granted by the Region 8 NRS.

18 **Q. Do you hold your opinions to a reasonable degree of scientific certainty?**

19 A. Yes, we do.

20 **Q. Does this conclude your direct testimony on these topics at this time?**

21 A. Yes, it does.

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2 MS. PAULSEN: This witness is now
3 available for cross examination, Your Honors.

4 A.L.J. LEARY: Mr. Dax?

5 MR. DAX: Thank you.

6 CROSS EXAMINATION

7 BY MR. DAX:

8 Q. In honor of your birthday Ms.
9 Denoncour, I've eliminated four hours of cross
10 examination.

11 A. Fantastic.

12 Q. Can you hand those out? I am --
13 I am circulating -- we are circulating a three-page
14 document. It is Item Number 191 on the list. It is
15 a Response to a Interro -- Information Request to
16 D.E.C.'s Bat Panel, Number C.W.E.-D.E.C.-07. And,
17 when it makes its way around to --.

18 MS. PAULSEN: She has an -- the
19 exhibit.

20 MR. DAX: You have --

21 MS. PAULSEN: Yes.

22 MR. DAX: -- you have it with you?
23 Okay. So, I would -- first I would ask that this be
24 marked for identification as Exhibit 217.

25 A.L.J. LEARY: Okay.

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2 BY MR. DAX: (Cont'g.)

3 Q. Ms. Denoncour, do you recognize
4 the document in front of you?

5 A. Yes.

6 Q. And, were you involved in the
7 preparation of -- of the response?

8 A. Yes.

9 Q. There's -- and, I see that your
10 -- the names of the persons preparing the response,
11 are yourself and Scott, is that correct?

12 A. No, that's incorrect. It should
13 be myself and Carl Herzog.

14 Q. Okay. With that correction, is
15 this -- with that correction, are the answers that
16 are given in this response, accurate and truthful?

17 A. Yes.

18 MR. DAX: Your Honor --

19 A.L.J. LEARY: Okay. I'm going --
20 excuse me, one second. I'm going to amend this
21 exhibit to provide for Mr. Herzog's name on the -- is
22 it Mr. Herzog?

23 THE WITNESS: Yes.

24 MR. DAX: Carl Herzog.

25 A.L.J. LEARY: On the bottom of this

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2 exhibit. So, is there any objection to doing that,
3 based upon -- I'm -- I'm not going to make you file a
4 corrected --

5 MS. PAULSEN: Okay.

6 A.L.J. LEARY: -- exhibit. So -- but,
7 I would like everybody to amend this exhibit, Hearing
8 Exhibit 217, in that manner. Thank you.

9 MS. PAULSEN: Would you like me to
10 spell his name, for the record?

11 A.L.J. LEARY: Carl, C-A-R-L.

12 MS. PAULSEN: Yeah, C-A-R-L.

13 A.L.J. LEARY: And, it's H-E-R-Z-O-G.

14 MS. PAULSEN: That's correct, Your
15 Honor. Thank you.

16 A.L.J. LEARY: Okay.

17 MR. DAX: Your Honor, I would like to
18 -- to move the Hearing Exhibit 217 into evidence.

19 A.L.J. LEARY: Any objections? It's
20 so admitted.

21 MR. DAX: Nothing further.

22 A.L.J. LEARY: Anyone else have cross
23 examination for this witness? Wow. Okay. Thank
24 you, Ms. Denoncour. You may step down.

25 THE WITNESS: Thank you.

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2 A.L.J. LEARY: Okay. Mr. Morgante.

3 (On the record, 9:04)

4 A.L.J. LEARY: Mr. Morgante, you were
5 sworn in yesterday and I just want to remind you that
6 you still are under oath.

7 THE WITNESS: Understood.

8 A.L.J. LEARY: Thank you. And do
9 speak into the microphone a little. Yeah, there you
10 go.

11 THE WITNESS: Understood.

12 A.L.J. LEARY: Did -- did Ms. Meagher
13 get copies of everything? Okay. So would you pass
14 this doc to her? And Mr. Dax, if you have copies --
15 if there are any extra copies would someone please
16 provide Ms. Meagher and kind of remember she is also
17 making an appearance, and I gave her probably
18 everything that you have provided so far because I
19 had extra copies up here.

20 MR. DAX: Yeah, I had passed out
21 enough copies to go to everybody --

22 A.L.J. LEARY: Okay.

23 MR. DAX: -- on that side of the room.

24 A.L.J. LEARY: Loop it around. Thank
25 you. Okay.

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2 MR. DAX: So Mr. Morgante is still
3 under oath and is ready for cross examination on --
4 on bats?

5 A.L.J. LEARY: I think did you bring
6 his bat panel testimony in yesterday? I don't think
7 you did that.

8 MR. DAX: Maybe I didn't, okay. Give
9 me a moment, would you --

10 A.L.J. LEARY: Yeah, please. Feel
11 free to take a minute.

12 BY MR. DAX:

13 Q. Mr. Morgante, do you have in
14 front of you, the prepared rebuttal testimony of Bat
15 Panel, Michael M. Morgante and Zachary D. Kaiser,
16 July 31st, 2019?

17 A. Yes, I do.

18 Q. And that consists of 34 pages of
19 typewritten questions and answers followed by, it
20 looks like sub 8 pages of references, is that
21 correct?

22 A. Yes.

23 Q. So the entire document is 42
24 pages, is that correct?

25 A. Yes.

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2 Q. And with that testimony, is there
3 -- were there 2 exhibits filed, they are Mr. Kaiser's
4 C.V. and a table Exhibit MK-R2 consisting of 2 pages,
5 is that correct?

6 A. Yes, that is correct.

7 MR. DAX: And those, Your Honor, are -
8 - are pre-marked as Hearing Exhibits 27 and 28.

9 BY MR. DAX: (Cont'g.)

10 Q. And did you file testimony both
11 in a confidential format and in a redacted format?

12 A. Yes.

13 MR. DAX: So today we are moving into
14 the record, the redacted portion of the testimony and
15 -- and the confidential testimony will be handed
16 pursuant to your protective order.

17 A.L.J. LEARY: You're moving both into
18 evidence?

19 MR. DAX: Right, but --

20 A.L.J. LEARY: The only --

21 MR. DAX: One pursuant to the
22 protective order terms and conditions.

23 A.L.J. LEARY: Which will not be
24 public.

25 MR. DAX: Which will not be public.

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2 A.L.J. LEARY: Okay.

3 BY MR. DAX: (Cont'g.)

4 Q. And is -- if I were to ask you
5 each of the questions in the pre-filed testimony that
6 we talked about, would your answers be the same
7 today?

8 A. Yes, they would.

9 Q. And do you affirm that the
10 testimony is truthful and accurate?

11 A. Yes, I do.

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**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER
IN CASE 16-F-0205**

**NEW YORK STATE BOARD ON ELECTRIC
GENERATION SITING AND THE ENVIRONMENT**

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	:	
In the Matter of	:	
	:	
CANISTEO WIND ENERGY LLC	:	Case 16-F-0205
	:	
Application of Canisteo Wind Energy LLC for a	:	
Certificate of Environmental Compatibility and Public	:	
Need Pursuant to Article 10 for Construction of a	:	
Wind Project Located in Steuben County.	:	
	:	
-----	X	

**PREPARED REBUTTAL
TESTIMONY OF BAT PANEL
MICHAEL M. MORGANTE AND ZACHARY D. KAISER**

July 31, 2019

Michael M. Morgante
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Zachary D. Kaiser
Ecology and Environment, Inc.

1 **Q. Will the first witness state your name and job title?**

2 A. Michael M. Morgante, Principal at Ecology and Environment, Inc. in
3 Buffalo, New York, where I have been employed for 25 years. I've been
4 involved in bird and bat studies, site characterization, evaluation of
5 potential impacts, and environmental permitting efforts with wind projects
6 for the last 16 years in New York and elsewhere.

7 **Q. Have you previously filed testimony in this proceeding?**

8 A. Yes, pre-filed testimony that was filed with the Canisteo Wind Energy
9 (CWE) Application.

10 **Q. Will the second witness state your name and job title?**

11 A. Zachary D. Kaiser. I am a federally permitted bat biologist, employed by
12 Ecology and Environment, Inc. for 3 years in their Overland Park, Kansas
13 regional office. I have 8 years of experience conducting biological
14 research at wind energy facilities, focusing primarily on impacts to bird
15 and bat species. My resume is attached as Exhibit __ (MK-R1).

16 **Q. Have you previously filed testimony in this proceeding?**

17 A. No, but I contributed to the Net Conservation Benefit Plan for CWE.

18 **Q. What is the purpose of this testimony?**

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Zachary D. Kaiser
Ecology and Environment, Inc.

1 A. Our testimony is being submitted to rebut certain direct testimony
2 prepared by Jeremy Rosenthal on behalf of the New York State
3 Department of Public Service Staff (“DPS”) and the direct testimony of
4 Brianna Denoncour and Carl J. Herzog prepared on behalf of the New
5 York State Department of Environmental Conservation (“DEC”)
6 regarding potential impact on bats.

7 **Q. Are you presenting any exhibits with this testimony?**

8 A. Exhibit __ (MK-R1) and Exhibit__(MK-R2).

9 **Q. Have you reviewed the direct testimony by Jeremy Rosenthal on**
10 **behalf of DPS?**

11 A. Yes.

12 **Q. Have you reviewed the direct testimony by Brianna Denoncour and**
13 **Carl J. Herzog on behalf of DEC?**

14 A. Yes.

15 **Q. Do you agree with the characterization of the state of bat population**
16 **decline and the role of wind turbines presented in pages 8-9 of DEC’s**
17 **testimony?**

18 A. We agree with several of the points in the testimony; however, the
19 discussion is nonspecific and additional information regarding these topics

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1 would be beneficial. Wind energy disproportionately impacts several bat
2 species, while posing minimal risk to others. Three migratory tree bat
3 species, hoary bat (*Lasiurus cinereus*), eastern red bat (*Lasiurus borealis*),
4 and silver-haired bat (*Lasionycteris noctivagans*), comprise nearly 80% of
5 all documented bat fatalities at wind energy facilities in North America,
6 while other species, like the northern long-eared bat (NLEB; *Myotis*
7 *septentrionalis*), comprise less than 0.01% of bat fatalities (Arnett and
8 Baerwald 2013).

9 It is unknown whether tree bat populations can sustain the current
10 levels of mortality observed at wind energy facilities because there is no
11 infallible means by which to accurately quantify baseline population
12 estimates for these species. Tree bats are difficult to study due to their
13 solitary and cryptic nature and their ability to migrate long distances in
14 short periods of time (Russell et al. 2015; Vonhoff and Russel 2015).
15 Currently, range-wide and regional population sizes, as well as
16 demographic structures remain unknown (Lentini et al. 2015; Russell et al.
17 2015; Frick et al. 2017). Studies have attempted to calculate baseline
18 population estimates for tree bat species using genetic markers (Korstian
19 et al. 2015; Vonhoff and Russel 2015) or stable hydrogen isotope ratio

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1 analyses (Pylant et al. 2016); however, differences in methodology,
2 sample size, and the locality of sample collection has led to varying results
3 (Korstian et al. 2015; Pylant et al. 2016). For example, Pylant et al. (2016)
4 estimated the eastern red bat population size to be roughly 3.6 million
5 individuals (95% CI: 423,000 – 4.1 million), while Vonhoff and Russell
6 (2015) calculated a range between 74,500 and 1.5 million individuals.
7 Hoary bat populations ranged from tens to hundreds of thousands of
8 individuals in these studies (Vonhoff and Russell 2015; Pylant et al.
9 2016), while Frick et al. (2017) estimates the population conservatively to
10 be 2.5 million individuals. Due to the ecology of these migratory tree bats
11 and the difficulty associated with studying small, highly mobile, volant,
12 nocturnal mammals, empirical population data will likely remain
13 unobtainable into the foreseeable future. Without this information, it is
14 difficult to scale population impacts per species or per state/region.
15 However, it should be noted that these bat species are long-lived animals
16 with low reproduction rates, so geographically widespread impacts, as
17 observed in wind energy studies, are indeed a cause for concern.

18 Currently, we know peak bat mortality generally occurs during late
19 summer and fall months (i.e., July – October; Kunz et al. 2007; Arnett et

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1 al. 2008; Thompson et al. 2017) when nightly wind speeds are low (Arnett
2 et al. 2008, 2010, 2011; Baerwald et al. 2009). In New York, 83% of all
3 bat fatalities found during post-construction mortality monitoring studies
4 occurred between July 1 and October 1 (NYSDEC 2017). We also know
5 that operational curtailment of turbines is currently the most effective
6 means by which to reduce bat fatalities (Arnett et al. 2011). In the
7 application, CWE proposed to curtail project turbines when wind speeds
8 are at or below 5.0 m/s from May 15 through September 30. Six studies
9 conducted in the Eastern and Mid-Atlantic United States indicate that this
10 approach could reduce bat fatalities by 47 – 87% (61% on average;
11 AWWI 2018; DNL-GV 2018), and Gruver and Bishop-Boros (2015)
12 indicates that no NLEB fatalities have been observed at wind energy
13 facilities implementing this operational threshold. With this estimated
14 level of fatality reduction for CWE, and assuming other proposed wind
15 projects in New York will follow, it may not become necessary to list
16 additional bat species in New York State (NYS). Further, none of the
17 migratory tree bats mentioned in the excerpt are currently proposed or
18 candidate species for listing in New York or nationally.

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1 **Q. Did you review the DEC calculations of bat (including NLEB)**
2 **mortality?**

3 A. Yes.

4 **Q. Do you agree with their methodology?**

5 A. The general approach, which is to use a set of post-construction bat
6 mortality studies in New York and the region as a basis to estimate
7 mortality at new projects, is reasonable and consistent with CWE's
8 methodology except for four significant exceptions.

9 **Q. Please explain the first exception.**

10 A. The DEC calculations assume that NLEB mortality rates are correlated to
11 the nameplate generating capacity of wind turbines (i.e., per megawatt),
12 while CWE's calculations assume mortality rates are correlated to the
13 number of wind turbines at a project. While there is a direct relationship
14 between generation capacity and the size of the rotor swept area (i.e.,
15 higher capacity turbines generally have larger rotor swept areas due to
16 their longer turbine blades on taller towers), to date, only a few studies
17 have researched the effects of turbine size on bat fatality rates (Barclay et
18 al. 2007; Arnett et al. 2008; Baerwald and Barclay 2009; Zimmerling and
19 Francis 2016). Zimmerling and Francis (2016), found that tower height

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1 did not affect bat mortality levels at wind energy facilities in Canada;
2 while Barclay et al. (2007), Arnett et al. (2008), and Baerwald and Barclay
3 (2009; a continuation of the Barclay et al. [2007] research) observed
4 increases in bat mortality with taller wind turbines. These latter three
5 studies, however, have some limitations when applied to the CWE project:
6 1) they focused on wind turbine models that were manufactured over 10
7 years ago. These turbines are relatively small (e.g., 0.04 MW to 1.8 MW
8 turbines) when compared to the modern 2.3 - 4.8 MW turbines¹ proposed
9 at CWE. Currently, it remains unknown if bat fatalities will continue to
10 scale upwards (or plateau) as modern turbines increase in size (i.e., up to
11 4.8 MW); almost no research into this topic has been completed in recent
12 years. And, 2) fatality rates were calculated cumulatively for all bat
13 species in these studies; species-specific fatality estimates were not
14 calculated. As studies have shown, wind turbines disproportionately
15 impact certain bat species (e.g., primarily migratory tree bats), while
16 posing minimal risk to others (e.g., NLEBs; Arnett and Baerwald 2013).
17 Therefore, an increase in turbine size and nameplate capacity may increase

¹ CWE proposes 2.3 - 4.8 MW turbines on 80-meter to 111.5-meter towers. Older wind farms typically did not exceed 80-meter towers.

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1 risks for certain species and not others, which will largely depend on
2 species-specific foraging behavior and habitat use.

3 NLEBs primarily forage close to the ground within the understory
4 of forested areas or within or under the forest canopy (LaVal et al. 1977;
5 USFWS 2015). This species is commonly referred to as a “gleaning bat”
6 because its wing shape (i.e., low aspect ratio and wing loading with
7 rounded wingtips) make it adept at slow, maneuverable flight within
8 cluttered forest habitat where it captures small insects resting on
9 vegetation or in flight (Caceres and Barclay 2000; Lee and McCracken
10 2004; Thompson 2006). LaVal et al. (1977) marked 11 NLEBs with light
11 tags and observed them frequently foraging between 1 and 3 meters above
12 ground level. A recent aerial telemetry study conducted in Ohio found
13 that NLEBs foraged almost exclusively within forested habitat (nearly
14 80% of the time) and individuals did not venture far from forest edges
15 (<60 m; Leftwich and Wetzel 2019). Leftwich and Wetzel (2019)
16 observed a preference by NLEBs to forage and commute within forests or
17 along forested fence rows and waterways. Henderson and Broders (2008)
18 also observed that NLEBs preferred to occupy forested habitat and rarely
19 utilized open areas in fragmented forest-agricultural landscapes. NLEBs

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1 are relatively weak fliers, not adapted to open-air aerial hawking and
2 chasing down insects at high speeds, like migratory tree bats (Norberg and
3 Rayner 1987). Thus, NLEBs are likely to avoid the rotor swept zone of
4 wind turbines due to increased energy demands for flight in higher wind
5 speeds and lack of foraging opportunities. To date, very few NLEB
6 fatalities have been observed at wind energy facilities (e.g., 43 individuals
7 or 0.3% of all bat fatalities; Gruver and Bishop-Boros 2015), which may
8 be indicative of this species' absence in the rotor swept zone. Acoustic
9 data from 96 Anabat bat detectors spread across 19 proposed wind energy
10 facilities in six states (i.e., Maine, New Hampshire, New York, Ohio,
11 Vermont, and West Virginia) from 2005 to 2009 indicate that *Myotis* bats
12 fly at low heights well below the rotor swept zone of wind turbines.
13 Approximately 95% of *Myotis* bat activity in these studies was recorded
14 by Anabat detectors placed at or below a height of 10 meters above
15 ground level (Meinke et al. 2010). It is expected that newer, high capacity,
16 wind turbines (i.e., 2.3 - 4.8 MW) on taller towers will have a rotor swept
17 zone that shifts upwards rather than closer to the ground where NLEBs
18 forage.

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1 Ultimately, the risk to all bat species, including the NLEB and migratory
2 tree bats, originates from the spinning blades of the turbine itself, not the
3 turbine's MW capacity. Consider this example: General Electric (GE)
4 produces onshore wind turbine models with 2.0 MW and 2.7 MW
5 capacities; both models have a 116-meter rotor diameter (General Electric
6 2018). In this case, a GE 2.0 MW turbine with 116-meter rotor diameter
7 will have an identical rotor swept area to the GE 2.7 MW turbine with
8 116-meter rotor diameter. A hypothetical 100 MW wind energy facility
9 could therefore consist of 50 2.0 MW turbines or 37 2.7 MW turbines.
10 Both facilities, regardless of number of turbines, would by DEC's
11 calculation present the same per MW fatality risk to bats, even though the
12 facility with 13 fewer turbines has a total rotor swept area that is
13 approximately 26% smaller (i.e., 26% smaller area of risk to bats; see the
14 calculation below).

- 15 • Area of a 116-meter rotor = 10,568.32 square meters
- 16 • 10,568.32*50 turbines = 528,416 square meters of rotor swept area
- 17 • 10,568.32*37 turbines = 391,028 square meters of rotor swept area
- 18 • Difference in rotor swept areas between the two 100 MW facilities =
- 19 **137,388 square meters**
- 20
- 21
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1 In this scenario, with the larger capacity 2.7 MW turbines, fewer turbines
2 would be constructed on the landscape, which would reduce the overall
3 rotor swept area and reduce the potential collision risk for bats (which the
4 DEC method of calculation does not account for). Fewer, larger capacity
5 wind turbines on the landscape reduces the probability of NLEBs
6 interacting with these structures and decreases the potential risk of
7 collision. Lastly, by constructing fewer higher capacity turbines on the
8 landscape, the overall impacts to bat habitat will decrease. Fewer acres of
9 forested habitat or other bat habitat would be modified or lost due to
10 construction (e.g., less facility roads, turbine pads, collection lines), and it
11 allows greater flexibility when siting turbine locations, i.e., higher quality
12 bat habitat can be avoided without sacrificing generation capacity.

13 Overall, we believe the NLEB fatality rate per megawatt is an
14 inaccurate calculation that overestimates fatality rates for NLEBs (and
15 other bat species) and bat mortality is more likely to be correlated to the
16 number of turbines on the landscape rather than the size of the generator in
17 the nacelle. Fatality calculations on a per turbine basis is more reasonable.

18 **Q. Please explain the second exception.**

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1 A. CWE believes that the dataset DEC used to calculate NLEB fatality
2 estimates is geographically restricted and includes a data outlier. DEC
3 limits their dataset to 16 sites in New York and one site at Wolfe Island,
4 Ontario and does not include regional datasets from wind projects in
5 neighboring states with similar NLEB habitat. For example, the CWE
6 project is within several miles of the state of Pennsylvania; including post-
7 construction studies from this state (which there are many) is simply as
8 relevant as including studies from Wolfe Island in neighboring Ontario,
9 Canada. Lastly, of the studies at these 17 sites used by DEC in their
10 calculations, only two had NLEB take, amounting to seven fatalities. The
11 Wethersfield Windpark was responsible for six of the seven NLEB
12 fatalities (86%), of which five occurred during a single year. To our
13 knowledge, this level of NLEB take by a single project in a single year has
14 not been observed at any other wind energy facility within the range of the
15 species and is a data outlier.

16 **Q. What are the impacts of these discrepancies?**

17 A. Because the nameplate capacity of CWE's turbines is larger than that of
18 the average capacity of turbines in the data set of historical mortality
19 studies, the DEC's per-MW methodology overestimates overall bat

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1 mortality. For all bat species, DEC calculates pre-curtailment mortality
2 based on 6.7 bats/MW (resulting in 1,943 total bats/year), while CWE
3 calculates pre-curtailment mortality based on 11.5 bats/turbine (resulting
4 in 1,403 bats/year) using the (geographically-limited) dataset that DEC
5 used in the Cassadaga case. This overestimation carries through to pre-
6 curtailment NLEB mortality estimates and ultimately to mitigation needs.

7 Secondly, the inclusion of the Wethersfield Windpark data outlier
8 skews per MW fatality estimates and unrealistically inflates the per MW
9 fatality estimate for NLEBs. A more robust dataset, including NLEB
10 fatality results from neighboring states with similar NLEB habitat, would
11 likely minimize the impact of this outlier and result in more accurate
12 NLEB take estimates for NYS and the Northeastern United States.

13 **Q. Please explain the third exception.**

14 A. In order to calculate NLEB fatality rates while still accounting for the
15 effects of White-nose Syndrome (WNS) on the NLEB population in NYS,
16 the DEC claims they are only using post-construction data from studies in
17 years within the post-WNS era (as stated in page 14 of their testimony,
18 “after 2008”). WNS was first recognized in NYS during the 2006-2007
19 hibernation season. It spread throughout much of the eastern half of NYS

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1 during the 2007-2008 hibernation season and continued to spread to
2 additional counties through the 2012-2013 hibernation season (WNS.org
3 2019). By including post-construction studies from 2009 – 2012 in their
4 calculations, the DEC is including fatality data from a transitional stage in
5 which WNS's impact was still unfolding within the state. Unquestionably,
6 the NLEB population in New York between 2009 and 2012 was greater
7 than it is today. Current DEC estimates state that NLEB populations have
8 declined by 98% (NYSDEC n.d.) in the state. Overall, the inclusion of
9 post-construction mortality data from 2009 – 2012 results in
10 overestimations of the overall NLEB fatality rate for the state.

11 **Q. What is the impact of this discrepancy?**

12 A. The overestimation of the NLEB fatality rate carries through to pre-
13 curtailment NLEB mortality estimates, which impacts turbine operation
14 and mitigation requirements for CWE. Per Table 2 in DEC's testimony,
15 2011 was the last year in which a NLEB fatality was discovered at an
16 operational wind energy facility in the state (NYSDEC 2019). CWE
17 expects NLEB fatalities to be an exceedingly rare event given: 1) this
18 species' propensity to fly low within forested areas outside of the rotor
19 swept area of wind turbines, 2) the fact that the project will be curtailing

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1 turbines at 5.0 m/s during the period of greatest risk to this species which
2 has been shown to be an effective curtailment strategy by which to reduce
3 *Myotis* bat fatalities (Hein et al. 2013; Young et al. 2013; Good et al. 2015,
4 2016, 2017, and 2018; Gruver and Bishop-Boros 2015) and 3) the drastic
5 population declines of this species in NYS due to WNS.

6 **Q. Please explain the fourth exception.**

7 A. To develop estimates of NLEB mortality for projects employing
8 curtailment regimes, particularly the effectiveness of curtailment regimes
9 for wind speeds between 5.0 and 6.9 m/s, the DEC relies upon fatality data
10 from species other than NLEBs. This is problematic because NLEB
11 foraging behavior and habitat use, particularly flight height, is quite
12 different than that of other bat species which were used to calculate rates
13 of curtailment effectiveness. DEC states in its direct testimony, “With
14 respect to the NLEB specifically, curtailment is likely to be even more
15 effective as a strategy for reducing fatalities. While there is no species-
16 specific data on NLEB fatality rates that occur at curtailed turbines, it is a
17 smaller bat than the tree bats and big brown bats which comprise most
18 bats killed at turbines in New York State.” Species-specific data of NLEB
19 fatality rates at curtailed turbines does exist and shows that, based on 10

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1 turbine curtailment studies, no NLEB fatalities have been found at
2 turbines curtailed at or above 4.0 m/s (Gruver and Bishop-Boros 2015).
3 No NLEB fatalities were observed during four years of post-construction
4 mortality monitoring studies (2014 – 2017; post-WNS years) at the Fowler
5 Ridge Wind Facility in Indiana while this facility was operating under a
6 5.0 m/s curtailment strategy (Good et al. 2015, 2016, 2017, and 2018).
7 Similarly, the Criterion Wind Facility in Maryland and the Pinnacle Wind
8 Facility in West Virginia, also operating under a 5.0 m/s curtailment
9 strategy in 2012 and 2013, respectively, observed zero NLEB fatalities
10 (Hein et al. 2013; Young et al. 2013). As DEC acknowledges in its direct
11 testimony, curtailment is likely to be more effective for NLEB than for the
12 larger migratory tree bat species and big brown bats. Therefore, based on
13 the studies cited in Gruver and Bishop-Boros (2015), as well as Hein et al.
14 (2013), Young et al. (2013), and Good et al. (2015 – 2018), CWE expects
15 that a curtailment strategy of 5.0 m/s would result in complete avoidance
16 of NLEB take (see Exhibit__MK-R2). The DEC states that a 5.0 m/s
17 curtailment strategy will reduce NLEB fatalities by 80% overall. It
18 remains unknown how this 80% reduction rate was calculated by the DEC,
19 as no information was provided in their testimony.

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1 **Q. What is the impact of this discrepancy?**

2 A. DEC concludes that take of NLEB will occur at a curtailment regime at
3 5.0 m/s, whereas CWE concludes that it will not. The analysis presented in
4 Gruver and Bishop-Boros (2015) used pre- and post-WNS data from 182
5 wind energy fatality studies across the United States and in parts of
6 Canada. It concluded wind energy facilities pose a very low mortality risk
7 to NLEBs, with this species comprising only 0.3% of total bat fatalities,
8 despite NLEBs once being one of the most common bat species on the
9 landscape prior to the proliferation of WNS (USFWS 2015). Arnett and
10 Baerwald (2013) estimate that NLEBs comprise <0.01% of all bat
11 fatalities at North American wind energy facilities. This low fatality rate is
12 likely a byproduct of the foraging patterns and habitat preferences for this
13 species; that is, NLEBs fly low to the ground and forage within the forest
14 interior. Gruver and Bishop-Boros (2015) indicate that no NLEBs
15 fatalities have been observed at wind energy facilities operating under a
16 curtailment strategy of 4.0 m/s or greater. Additional curtailment studies at
17 wind facilities within the range of the NLEB also have not observed
18 NLEB mortality when curtailment at 5.0 m/s (Hein et al. 2013; Young et al.
19 2013; Good et al. 2015 – 2018). Therefore, CWE believes that a 5.0 m/s

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1 curtailment strategy will lead to complete avoidance of take of NLEBs. In
2 their testimony, DEC does not provide any evidence that NLEBs have
3 been killed at wind energy facilities in New York or elsewhere operating
4 under any curtailment strategy, regardless of cut-in speed.

5 **Q. DEC discredits the validity of the Gruver and Bishop-Boros (2015)**
6 **study. How do you respond?**

7 A. CWE agrees with the DEC that the Gruver and Bishop-Boros (2015) study
8 was not published in a scientific journal; however, the main author of this
9 study has published numerous bat studies in relevant scientific journals
10 and Western EcoSystems Technology, Inc. has a 20-year track record of
11 completing post-construction mortality studies at wind energy facilities
12 within the United States. Few (if any) consulting firms or agencies have
13 the ability or access to compile data from 182 post-construction mortality
14 studies across the United States. At this time, there are no peer-reviewed
15 scientific studies that have calculated the effectiveness of curtailment
16 strategies on *Myotis* bats, which may largely be due to the rarity of *Myotis*
17 bat fatalities at individual wind facilities. To our knowledge, the Gruver
18 and Bishop-Boros (2015) study is the only available resource regarding
19 this topic, and likely contains the most robust dataset. It is arguably a

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1 better resource for calculating the effectiveness of curtailment strategies
2 on *Myotis* bats, as opposed to using fatality data from tree bats and big
3 brown bats (as DEC proposes), which have different foraging and flight
4 behaviors and occupy different airspaces relative to small *Myotis* bats.

5 Overall, the dataset provided in the Gruver and Bishop-Boros
6 (2015) study, like Arnett and Baerwald (2013), outlines how few *Myotis*
7 bat fatalities, particularly NLEBs, have been discovered at operational
8 wind facilities throughout North America over the last decade of research.
9 It's evident that fatality risk to this species across its range from wind
10 turbine collisions is very low; and when paired with the effects of WNS,
11 the likelihood of NLEB take becomes an extremely rare event. Table 12
12 in Gruver and Bishop-Boros (2015) presents pre- and post-WNS *Myotis*
13 fatality data at two wind facilities (Mount Storm, WV and Criterion, MD).
14 Prior to the onset of WNS at these sites, 80 *Myotis* fatalities were
15 discovered. Post-WNS, only 12 *Myotis* fatalities were documented (an
16 85% decline). While this difference in the number of fatalities at these
17 sites pre-and post-WNS was not statistically tested, and it's unlikely the
18 variability in fatalities per year is entirely attributable to the effects of
19 WNS (i.e., Mount Storm and Criterion were curtailing at 4.0 m/s and 5.0

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1 m/s, respectively), the sharp decline in *Myotis* fatalities between pre- and
2 post-WNS years as well as years with or without curtailment is striking. It
3 should also be noted that all 12 post-WNS *Myotis* fatalities that were
4 discovered during these two studies occurred at the Mt. Storm wind
5 facility operating under a 4.0 m/s curtailment strategy, not at the Criterion
6 wind facility operating under a 5.0 m/s strategy.

7 **Q. The DEC presents two sets of NLEB take estimates for CWE in their**
8 **testimony. What are they?**

9 A. On page 16 of their testimony, the DEC estimates the following take of
10 NLEBs at the project with and without curtailment strategies in place:

- 11 • No curtailment: 7.9 NLEBs/year or 235.5 NLEBs over 30 years
- 12 • 5.0 m/s: 1.6 NLEBs/year or 47.1 NLEBs over 30 years
- 13 • 5.5 m/s: 1.2 NLEBs/year or 35.3 NLEBs over 30 years
- 14 • 6.0 m/s: 0.8 NLEBs/year or 23.6 NLEBs over 30 years

15 On page 17 of their testimony, the DEC adds a second set of NLEB take
16 estimates for the project with and without curtailment strategies in place.

17 The estimates below include additional take due to the project being
18 located within occupied NLEB habitat.

- 19 • No curtailment: 248.5 NLEBs over 30 years

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1 • 5.0 m/s: 60.1 NLEBs over 30 years

2 • 5.5 m/s: 48.3 NLEBs over 30 years

3 • 6.0 m/s: 36.6 NLEBs over 30 years

4 **Q. How do these two sets of NLEB take estimates for CWE differ and**
5 **why?**

6 A. The second set of take estimates includes an additional take of 13 NLEBs
7 over the project's lifespan regardless of whether a curtailment strategy is
8 enacted or not. Unfortunately, how DEC calculated this additional take of
9 13 NLEBs is not presented within their testimony. So, there is no means
10 by which CWE can assess the accuracy of this claim. The DEC needs to
11 clarify how they calculated this additional take estimate for NLEBs.

12 **Q. On page 34 of DEC testimony, the DEC states the CWE's proposed**
13 **mitigation plan does not meet the standards of Part 182 and is not**
14 **likely to achieve a net conservation benefit to NLEB. Do you agree**
15 **with this statement?**

16 No, we do not agree with this statement. As outlined in Table 1 of the Net
17 Conservation Benefit Plan (NCBP) prepared by CWE, the project will
18 either result in the take of zero NLEBs or a net increase of six NLEBs,
19 depending on how NLEB take is calculated (i.e., per MW or per turbine

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1 basis) and the number of maternity roost tree credits applied to mitigation
2 for CWE. The calculations in Table 1 of the CWE NCBP were sourced
3 from the DEC's direct testimony for the Cassadaga Wind Energy Project
4 (Case No. 14-02216). Following submittal of the CWE NCBP, the DEC
5 altered their per-MW take estimates for NLEBs. In the Cassadaga
6 testimony, the DEC estimates NLEB take at 0.025 bats/MW, as presented
7 in Table 1 of the CWE NCBP. Now, in their July 12, 2019 CWE
8 testimony (Case No.:16-F-0205), the DEC has increased the NLEB take
9 estimate to 0.027 bats/MW. This small difference in per-MW take has led
10 to a discrepancy in total take between CWE's filing of the NCBP and this
11 current testimony. Additionally, the DEC insists that CWE will take an
12 additional 13 NLEBs over the lifespan of the project due to its placement
13 within occupied NLEB habitat, which was not presented to CWE prior to
14 DEC's July 12, 2019 testimony.

15 **Q. DEC states on page 26 (line 9 - 11) that full avoidance of take of**
16 **NLEB can be achieved with a 5.0 m/s curtailment strategy during**
17 **May and June, but full avoidance during July – September requires a**
18 **6.9 m/s curtailment strategy. How do you respond?**

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1 A. In their testimony, the DEC does not fully explain their reasoning why one
2 curtailment strategy is considered full avoidance during 2 months of the
3 year but only 80% effective at reducing NLEB take in three other months
4 of the year. They suggest that NLEB behavior “changes significantly”
5 (lines 9 – 10 on page 27) between the May – June 30 timeframe and July 1
6 – September 30 timeframe, as the latter timeframe is “largely outside the
7 maternity period.” The DEC does not elaborate on what specific behaviors
8 change, how this species would be at greater risk because of these
9 behavioral changes during this timeframe, and how the timeframes were
10 established.

11 CWE agrees with the DEC that bat behavior changes after bats
12 leave their maternity grounds and migrate towards their hibernaculum.
13 However, in this instance, the behavior of greatest concern is NLEB flight
14 height. We question whether the flight height of NLEBs following the
15 maternity season increases such that this species is more active within the
16 rotor swept zone of a wind turbine and thereby more susceptible to
17 collision. To date, specific migratory flight heights for this species have
18 not been documented in the scientific literature. We do know that 1.)
19 NLEBs generally fly low to the ground when foraging (LaVal et al. 1977;

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1 Nagorsen and Brigham 1993); 2.) this species prefers the forest interior
2 and infrequently uses open areas in fragmented agricultural-forested
3 landscapes (Henderson and Broders 2008), 3.) NLEBs show a preference
4 to commute within forests (Henderson and Broders 2008) or along
5 forested fence rows and waterways (Leftwich and Wetzel 2019); and 4.) to
6 protect themselves from wind and predators, NLEBs are known to follow
7 edge habitat during migration, rather than flying the shortest distance
8 across an open area (WDNR 2017). Given this species' small size and
9 relatively weak flight capabilities, it seems plausible that long distance
10 migratory movements by NLEBs occur at or below the height of the tree
11 canopy in forested habitats outside the reach of spinning turbine blades.
12 Very few NLEB fatalities have been reported at wind energy facilities
13 over the last decade, which may be indicative of this species' general
14 absence in the rotor swept zone during migration.

15 CWE believes a 5.0 m/s curtailment strategy, regardless of time of
16 year, will result in complete avoidance of NLEB take. To date, NLEB take
17 has not been documented at any operational wind energy facility in North
18 America implementing a curtailment strategy (Hein et al. 2013; Young et
19 al. 2013; Gruver and Bishop-Boros 2015; Good et al. 2015, 2016, 2017,

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1 and 2018). CWE believes a 6.9 m/s curtailment strategy is overly
2 conservative and a 5.0 m/s strategy would provide full avoidance of NLEB
3 take while allowing for greater amounts of renewable energy generation.

4 **Q. Do you agree the presence of NLEBs flying among the turbines during**
5 **the maternity season will lead to an increased likelihood of direct take,**
6 **even with 5.0 m/s curtailment strategy enacted?**

7 With the project built within occupied NLEB maternity habitat, there is an
8 increased likelihood that this species may fly near operational turbines.
9 However, it is unknown whether this will lead to increased take of
10 NLEBs, as it is dependent on what airspaces this species occupies (i.e., in
11 or out of the rotor swept zone). It is expected that NLEBs will occupy
12 airspaces below the reach of spinning turbine blades in interior forest
13 habitats.

14 The NLEB has a vast geographic range, spanning the entire eastern
15 and central portions of the United States and most of southern Canada.
16 Prior to the proliferation of WNS, it was once one of the most common
17 species on the landscape. Yet, documented fatalities of this species at
18 operational wind energy facilities remained relatively low overall (<0.01%
19 of total bat fatalities in Arnett and Baerwald 2013; 0.3% in Gruver and

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1 Bishop-Boros 2015; 0.48% in NYSDEC 2019). Conversely, the similar-
2 sized little brown bat (*Myotis lucifugus*), also with a vast geographic range
3 and impacted by WNS, as well as a very similar diet to the NLEB
4 (consuming the same 10 orders of insect species in one study; Lee and
5 McCracken 2004), has much greater observed fatality rates at operational
6 wind facilities (6% of total bat fatalities in Arnett and Baerwald 2013;
7 8.1% of total bat fatalities in Gruver and Bishop-Boros 2015; 6.96% in
8 NYSDEC 2019). This significant difference in observed fatalities among
9 two very similar *Myotis* species is likely a byproduct of specific habitat
10 selection and foraging preferences for each species. The NLEB is
11 considered an interior forest foraging specialist, adept at slow
12 maneuverable flight in cluttered habitat and gleaning insects from
13 vegetation. The little brown bat, on the other hand, is considered a
14 foraging generalist, which uses edge and open agricultural fields more
15 often than NLEBs and will opportunistically consume any available insect
16 3-10 millimeters in size (Anthony and Kunz 1977, Feldhamer et al. 2009).
17 Patriquin and Barclay (2003) observed a preference by little brown bats to
18 forage in forest clear cuts, while NLEBs preferred undisturbed interior
19 forests.

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1 Thousands of wind turbines have been built in NLEB habitat
2 across the US and Canada, and this species is not a common species found
3 during post-construction mortality monitoring (even in pre-WNS studies).
4 If this species was largely susceptible to turbine collisions, there would
5 have been a large number of carcasses discovered in the field, like what
6 biologists have observed with little brown bats. As mentioned above, it is
7 expected that NLEBs will primarily reside within the forest outside the
8 reach of spinning turbine blades, and therefore we don't expect increased
9 take of this species. Lastly, the 5.0 m/s curtailment strategy enacted at the
10 Project from May 15 - September 30 will add further protections to the
11 NLEB.

12 **Q. DPS recommends, at a minimum, a 6.0 m/s curtailment regime from**
13 **July 1 to October 1 each year. How do you respond?**

14 A. This recommendation by DPS is based on the Bat-Wind Guidelines
15 (September 2016) as created by the Vermont Agency of Natural Resources
16 – Fish and Wildlife Department. This 6.0 m/s curtailment strategy is
17 derived from a single 2-year study conducted in the state of Vermont by
18 Martin (2015). They report a 60% reduction in bat fatalities at the
19 Sheffield Wind Facility in Vermont during the first year of the study but

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1 showed lower bat fatality reduction rates that were not statistically
2 significant during the second year of the study. This was likely the only
3 bat curtailment study in the state of Vermont at the time these Bat-Wind
4 Guidelines were created, and thus the basis for their recommendation.

5 Overall, bat fatality rates are highly variable amongst studies,
6 including those that implemented curtailment strategies (AWWI 2018).
7 This variability likely results from a multitude of interacting factors,
8 including: the specific wind site location, topographic, hydric, and
9 biological characteristics of the wind site, bat species assemblages,
10 presence or absence of migratory pathways for bats, weather conditions,
11 roost and prey availability, and turbine size and placement. Reduction
12 rates per curtailment strategy are also variable. Some studies have
13 observed an 87% reduction in bat fatalities with a 5.0 m/s curtailment
14 strategy (AWWI 2018), while other projects implementing curtailment
15 strategies at higher wind speeds, say 6.0 m/s, have only observed a 38%
16 bat fatality reduction (Arnett et al. 2013).

17 CWE created their Bat Conservation Strategy based on results
18 from numerous scientific studies conducted over the last decade, and
19 disagrees with DPS that a single, short-term curtailment study (i.e., Martin

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1 2015) should be the basis for a long-term curtailment strategy at 6.0 m/s
2 for the project. Six studies conducted in the Eastern and Mid-Atlantic
3 United States indicate that bat fatality reductions range between 47 – 87%
4 (61% on average) when a 5.0 m/s curtailment strategy is implemented
5 (AWWI 2018; DNV-GL 2018). Overall, the scientific literature indicates
6 that a 5.0 m/s strategy will provide similar bat fatality reductions (61% on
7 average) to the 6.0 m/s strategy recommended by DPS, while allowing
8 CWE to generate considerably more renewable energy each year.

9 **Q. DEC and DPS recommend curtailment 30 minutes before and after**
10 **sunrise while CWE proposed curtailment between sunset and sunrise.**
11 **What is the basis for the difference?**

12 A. Before we answer the question above, we will define sunrise and sunset.
13 Sunrise is defined as the moment the top of the sun's disc first breaks the
14 plane of the horizon in the morning, and sunset is when the top of the sun's
15 disc sinks out of view below the horizon in the evening. Relative to CWE
16 and its curtailment strategy, daily sunset and sunrise times will be acquired
17 from the National Weather Service (or similar database) and will be based
18 off the coordinates (i.e., latitude/longitude) at the center of the project
19 area.

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1 Bat emergence times at sunset are variable across species and are
2 influenced by numerous factors acting simultaneously, including
3 temperature (Catto et al. 1995; Frick et al. 2012), cloud cover (Kunz and
4 Anthony 1996), precipitation (McAney and Fairley 1988), and other
5 climatic conditions (Frick et al. 2012), as well as prey availability (Erkert
6 1982; Rydell et al. 1996) and predator avoidance (Jones and Rydell 1994).
7 Changing light levels, corresponding with sunset and sunrise, are the
8 largest drivers of emergence and cessation of nightly bat activities (Lee
9 and McCracken 2001). Evidence from acoustic studies at other wind
10 energy sites show few acoustic calls of bat species recorded prior to sunset
11 or after sunrise (MidAmerican Energy Company 2018). CWE is unaware
12 of any published literature indicating that significant numbers of bats are
13 active 30 minutes prior to sunset or 30 minutes post-sunrise, that would
14 warrant curtailment during these time periods. Neither DEC nor DPS
15 provide any evidence in their testimony indicating that significant risk to
16 NLEBs or tree bats exist during these timeframes. Kunz (1971 and 1973)
17 observed peak foraging for NLEBs to occur during the first two hours
18 after sunset and the last two hours before sunrise. An abundance of
19 additional scientific literature indicates that bat activity across species

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1 tends to be greatest during the first three hours after sunset (Jones et al.
2 1996; Kunz 1974; Kunz and Brock 1975; Taylor and O'Neill 1988;
3 Thomas and West 1991; Zielinski and Gellman 1999). Furthermore, 2018
4 telemetry data from CWE and one other proposed wind energy facility
5 located nearby in New York indicated that radio-tagged NLEBs did not
6 emerge from their roosts before sunset (Invenergy 2018, 2018a). This
7 species was observed emerging, on average, 8.7 minutes after sunset
8 (range: 0 – 25 minutes after sunset), and several individuals did not
9 emerge until 30 or more minutes after sunset. Based on the scientific
10 literature presented above, acoustic studies from other wind sites, and
11 local NLEB telemetry data at the project and a nearby NYS wind site,
12 CWE believes that curtailment should be limited strictly to night-time
13 hours between sunset and sunrise.

14 **Q. There is a big difference between the proposed tree clearing window**
15 **and that recommended by DEC. What is the basis for the difference?**

16 A. CWE proposes to follow tree clearing guidelines outlined by USFWS
17 (2016) *Key to the Northern Long-Eared Bat 4(d) Rule for Non-Federal*
18 *Activities*: 1) no tree removal activities will occur within 150 feet of a
19 known occupied maternity roost tree from June 1 through July 31; and 2)

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1 no tree removal activities will occur within 0.25 mile of a hibernaculum at
2 any time. Currently, no known hibernacula occur within 0.25 miles of the
3 Project boundary. **BEGIN CONFIDENTIAL INFORMATION <**

4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED].

8 **Table 1. Distances from NLEB Roost Locations to Nearest CWE**
9 **Turbines, Project Roadways, and Collection Lines.**
10

11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]
19 [REDACTED]

20> **END CONFIDENTIAL INFORMATION**

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1 CWE will consult with the DEC prior to commencement of tree removal
2 activities to confirm that no new NLEB roosts or hibernacula have been
3 discovered within the project area.

4 **Q. Does that complete your testimony?**

5 A. Yes.

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Zachary D. Kaiser
Ecology and Environment, Inc.

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2 MR. DAX: Your Honor, I ask that the -
3 - the identified testimony and Hearing Exhibits 27
4 and 28 be moved into evidence.

5 A.L.J. LEARY: Any objections? So
6 admitted.

7 MR. DAX: The witness is available for
8 examination.

9 A.L.J. LEARY: Ms. Paulsen?

10 Ms. Paulsen: Yes, thank you, Your
11 Honor.

12 CROSS EXAMINATION

13 BY MS. PAULSEN:

14 Q. Mr. Morgante, I'd like to direct
15 you to Page 15 Line 2 of your testimony where you
16 make a cite -- let me know when you're there.

17 A. Yes, I am there.

18 Q. Okay. You make a citation to
19 wns.org. Did you intend for that citation to be
20 whitenosesyndrome.org?

21 A. I believe that to be the case,
22 but I did not go to that site myself so if that --
23 what W.N.S. is the acronym or abbreviation for white-
24 nose syndrome.

25 Q. Did you intend to cite to the

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 website that the U.S. Fish and Wildlife Service
3 operates regarding white-nose syndrome?

4 A. I believe that was the intention.

5 A.L.J. LEARY: Wait a minute. Why are
6 you believing this? This is your testimony --

7 THE WITNESS: Right.

8 A.L.J. LEARY: -- is -- is that what
9 was intended?

10 THE WITNESS: Well, we wanted to show
11 the data through that season and if it's a question
12 asked to, is it the correct website or not maybe I'm
13 leading into that if that was the question.

14 A.L.J. LEARY: Ms. Paulsen, can you
15 repeat the question for the witness?

16 MS. PAULSEN: I'll -- I'll restart the
17 line of questioning.

18 BY MS. PAULSEN: (Cont'g.)

19 Q. Mr. Morgante, are you aware that
20 wns.org is -- is no longer an active website?

21 A. I am not aware of that, but that
22 could be a faulty reference then.

23 Q. What was your intention in citing
24 this -- this website?

25 A. It was to document the spread of

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 the information that was in the sentences prior to
3 that with the spread of a white-nose syndrome.

4 Q. And again, is that intention to
5 cite to the United States Fish and Wildlife Services
6 white-nose syndrome website?

7 A. Since they are the keeper of that
8 information then that would be the place to do that.

9 MS. PAULSEN: Your Honors, I would
10 like to move for judicial notice of the website
11 whitenosesyndrome.org.

12 A.L.J. LEARY: I was under the
13 impression you were just saying it wasn't any longer
14 active.

15 A.L.J. SHERMAN: The wns.org is not.

16 A.L.J. LEARY: I'm sorry.

17 MS. PAULSEN: So wns.org is no longer
18 an active website, but whitenosesyndrome.org is.

19 A.L.J. LEARY: Okay. You are moving
20 what portion of, the entire website --

21 MS. PAULSEN: Correct, Your Honor.

22 A.L.J. LEARY: -- for --

23 MS. PAULSEN: The entire website was
24 cited in his testimony. Wns.org in its entirety was
25 cited in his testimony. I'm attempting the get the -

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 - the correct website hyperlink into evidence.

3 A.L.J. LEARY: Okay. Hold on a
4 second. Mr. Morgante, should that citation be to the
5 whitenosesyndrome.org website for the United States
6 Fish and Wildlife service rather than wns.org?

7 THE WITNESS: Considering that the
8 references section on Page 42 shows it as
9 whitenosesyndrome.org. I don't think there is -- I
10 think it was an acronym used in the rebuttal --

11 A.L.J. LEARY: Okay.

12 THE WITNESS: -- on Page 15 and is
13 shown what I believe to be correct in Page 42.

14 A.L.J. LEARY: Okay. So I'm going to
15 ask Mr. Dax to stipulate that there's an error in the
16 panel's testimony that I guess should be corrected,
17 Mr. Dax?

18 MR. DAX: Yes, Your Honor. And to
19 clarify, on Page 14 this is a -- this is a word
20 processing thing that happened on Page 14 white-nose
21 syndrome is spelled and then abbreviated W.N.S and if
22 you do the common search and replace then
23 unintentionally the website name got -- got
24 abbreviated incorrectly to W.N.S.

25 A.L.J. LEARY: Okay. Ms. Paulsen,

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 would it be acceptable for Canisteo Wind to file a
3 corrected version of this rather than having judicial
4 notice of the entire website in that, is that okay?

5 MR. DAX: Can we correct it right
6 here. I'll -- I'll stipulate as you asked that --
7 that W.N.S. on the top of the Page 15 line 2 should
8 be white-nose syndrome spelled out.

9 A.L.J. LEARY: Is that okay?

10 MS. PAULSEN: That's fine, Your Honor.

11 A.L.J. LEARY: Okay. I know what
12 you're trying to do. I just think there is a shorter
13 circuit --

14 MS. PAULSEN: Okay.

15 A.L.J. LEARY: -- to get there. Okay.
16 Proceed.

17 MS. PAULSEN: Okay.

18 BY MS. PAULSEN: (Cont'g.)

19 Q. Mr. Morgante, the Grover paper
20 did not conduct its own study, correct?

21 A. That is correct. They looked at
22 an analysis of other studies.

23 Q. So isn't it true the Grover paper
24 compiles data from other studies conducted?

25 A. Yes.

1 16-F-0205 - Canisteo Wind Energy - 8-21-19

2 Q. And then the paper is therefore
3 an analysis of that compilation of data?

4 A. Yes, that is fair.

5 Q. And Mr. Morgante, do bats ever
6 fly during the day?

7 A. Yes, they do.

8 Q. And have any of the post-
9 construction studies in New York State regarding bats
10 measure at the time of day that they are killed by
11 wind turbines?

12 A. Unless -- I am not aware that any
13 study in New York State has used video camera or some
14 type of technology that would record the time of
15 death.

16 MS. PAULSEN: No further questions,
17 Your Honors.

18 A.L.J. LEARY: Re-direct?

19 MR. DAX: None.

20 A.L.J. LEARY: Any other questions for
21 this witness? Thank you very much, Mr. Morgante.
22 Okay. We are moving on to Mr. Runner. Is Mr. Runner
23 here?

24 MR. DAX: He is.

25 A.L.J. LEARY: Would you raise your

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 right hand, please? Do you swear that the testimony
3 you're about to give will be the truth and the whole
4 truth?

5 MR. RUNNER: I do.

6 WITNESS; JACOB RUNNER; Sworn

7 A.L.J. LEARY: Thank you. Would you
8 please state your name for the record as well as your
9 affiliation?

10 THE WITNESS: It's Jacob S. Runner and
11 I work for Environmental Design and Research,
12 Landscape Architecture Engineering and Environmental
13 Services, D.P.C.

14 A.L.J. LEARY: Mr. Dax.

15 BY MR. DAX:

16 Q. Mr. Runner, do you have a copy of
17 testimony, rebuttal testimony of Benjamin Brazell and
18 Jacob Runner in front of you?

19 A. I do.

20 Q. Okay. I don't see it so I'll
21 just take your word for it. And did you participate
22 in the preparation of that testimony?

23 A. I did.

24 Q. And I have -- so I have in front
25 of me 11 pages with a coversheet 10 pages of

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 questions and answers typewritten, if I would ask you
3 each of those questions today would your answers be
4 the same?

5 A. They would.

6 MR. DAX: Your Honor, by -- by prior
7 arrangement we will be submitting the -- the
8 testimony of Benjamin Brazell by affidavit with our
9 affidavits so we will not be dealing with that part
10 of this package of testimony today.

11 A.L.J. LEARY: What are you saying?

12 MR. DAX: Mr. Brazell is on the panel
13 and he will be submitting an affidavit.

14 A.L.J. LEARY: Oh, okay. For this
15 testimony?

16 MR. DAX: For this testimony.

17 A.L.J. LEARY: Okay.
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**NEW YORK STATE BOARD ON ELECTRIC
GENERATION SITING AND THE ENVIRONMENT**

-----	X	
	:	
Application of Canisteo Wind Energy, LLC for a	:	Case 16-F-0205
Certificate of Environmental Compatibility and	:	
Public Need Pursuant to Article 10 for	:	
Construction of a Wind Project Located in	:	
Steuben County.	:	
	:	
-----	X	

**REBUTTAL TESTIMONY OF:
BENJAMIN R. BRAZELL, PRINCIPAL
ENVIRONMENTAL DESIGN & RESEARCH,
LANDSCAPE, ARCHITECTURE, ENGINEERING
& ENVIRONMENTAL SERVICES, D.P.C. (EDR)
217 MONTGOMERY STREET, SUITE 1000
SYRACUSE, NEW YORK, 13202**

AND

JACOB S. RUNNER, PROJECT MANAGER (EDR)

Case 16-F-0205

Benjamin Brazell and Jacob Runner

1 **Q. Please state your names, employer, and business address.**

2 A. Benjamin R. Brazell, Environmental Design & Research, Landscape,
3 Architecture, Engineering & Environmental Services, D.P.C. (“EDR”), 217
4 Montgomery Street, Suite 1000, Syracuse, NY 13202-1942.

5 **Q. Did you file pre-filed testimony in this matter, which contained your**
6 **credentials**

7 A. Yes. Please see the pre-filed testimony that was filed with the Application.

8 **Q. Can the second witness please state your name, employer, and**
9 **business address.**

10 A. Jacob S. Runner, Environmental Design & Research, Landscape,
11 Architecture, Engineering & Environmental Services, D.P.C. (“EDR”), 217
12 Montgomery Street, Suite 1000, Syracuse, NY 13202.

13 **Q. Please describe your educational background and professional**
14 **experience.**

15 A. I received a Bachelor of Science Degree in Environmental Science with a
16 concentration in Environmental Information and Mapping from State
17 University of New York College of Environmental Science and Forestry
18 (ESF) in 2012. While at ESF I completed advanced coursework in
19 conducting spatial analyses including Principals of Remote Sensing, GIS
20 for Engineers, Spatial Ecology, Geographic Information and Society, and

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1 Cartographic Design. Since my employment with EDR, I have worked in
2 the capacity as Environmental Analyst/GIS Specialist, Senior
3 Environmental Analyst/GIS Specialist, and Project Manager. I have over 5
4 years of experience performing and/or supervising projects involving
5 environmental surveys, state and federal wetland permitting, spatial
6 analyses, shadow flicker assessments, environmental impact assessments,
7 and preparation of multiple state siting board applications and
8 environmental impact statements. My resume is Exhibit ____ (JSR-1).

9 **Q. Please describe your current responsibilities with EDR.**

10 A. As a Project Manager, I am responsible for conducting and/or overseeing
11 wetland delineations, state and federal wetland permitting, environmental
12 impact assessments, and preparation of numerous state siting board
13 applications. I am also responsible for assigning, scheduling and
14 coordinating staff, overseeing project teams, and providing quality
15 assurance. I have also been responsible for conducting and/or overseeing
16 numerous shadow flicker assessments across multiple states in the northeast
17 and the midwest (New York, Ohio, Colorado, Kansas, Iowa). Additionally,
18 I provided technical expertise to the Vermont Department of Public Service
19 in review of shadow flicker analyses conducted by applicants of proposed
20 wind farms.

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Benjamin Brazell and Jacob Runner

1 **Q. Did you file pre-filed testimony in this matter, which contained your**
2 **credentials?**

3 A. No.

4 **Q. Have you previously testified before the New York State Public Service**
5 **Commission or Siting Board on Electric Generation?**

6 A. I have previously submitted pre-filed testimony in Case 15-F-0122 and Case
7 17-F-0282.

8 **Q. What is the scope of the Panel's rebuttal testimony in this proceeding?**

9 A: This testimony is being submitted to rebut certain direct testimony prepared
10 by Andrew C. Davis, New York State Department of Public Service (DPS)
11 Utility Supervisor, and Timothy Brown, Citizens for Maintaining Our Rural
12 environment (CMORE), relating to shadow flicker.

13 **Q. Is the Panel sponsoring any additional evidence with your testimony?**

14 A. Yes. We are sponsoring information from the Danish Wind Industry
15 Association. Exhibit ____ (JSR-2).

16 **Q. Do you agree with the DPS Staff Policy Panel proposed certificate**
17 **conditions regarding the threshold for limiting shadow flicker**
18 **operation?**

19 A. Yes. DPS Staff propose that shadow flicker shall be limited to a maximum
20 of 30-hours annually for non-participating receptors. The 30-hour threshold

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1 is consistent with Certificate Conditions set forth by the Siting Board in
2 Case No. 14-F-0490 and is also consistent with thresholds established in
3 other jurisdictions as described in Section 3.3 of Appendix 24b of the
4 October 2018 Application.

5 **Q. In his direct testimony Mr. Davis states that “These provisions do not**
6 **provide consideration of limiting exposures exceeding 30 minutes daily**
7 **to avoid or minimize such disturbances at non-participating**
8 **residences...”. Do you agree that the Applicants proposed Certificate**
9 **Condition 57 and Compliance Filing Attachment A Shadow Package**
10 **should have addressed a threshold of 30 minutes daily at receptors?**

11 A. No. Mr. Davis references the 2012 NARUC *Wind Energy & Wind Park*
12 *Siting and Zoning Best Practices and Guidance for States* as the basis for
13 recommending consideration of a 30-minute per day threshold. NARUC
14 provides a Recommended Approach that restricts shadow flicker to 30-
15 hours per year or 30-minutes per day at occupied buildings. The original
16 basis for a 30-minute limit traces back to a 2002 German guideline and a
17 1999 German government-sponsored study. The 2012 NARUC report Mr.
18 Davis cites, in turn cites two sources (Lampeter 2011 and Ellenbogen et al
19 2012), both of which only make reference to the 2002 German guideline
20 which suggested a maximum of 30 minutes per day. The German

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1 government-sponsored study (Pohl, et.al., 1999., Annoyance due to shadow
2 flicker from wind turbines- laboratory pilot study [with appendix) and field
3 study (with appendix)] placed 32 students and 25 professionals in either a
4 control setting or an experimental group that was exposed to 60 minutes of
5 shadow flicker. While this study indicates that 60 minutes of shadow flicker
6 elevates annoyance it also states that “*Whether a daily shadow value of*
7 *more than 30 minutes per day is associated with unacceptable harassment*
8 *could not be clarified in the context of this investigation due to a too small*
9 *number of persons with more than 30 minutes per day.*” It is our
10 understanding that these conditions were based on the laboratory
11 experiment explained above and not actual field conditions. Moreover,
12 according to the Danish Wind Industry Association, a German court ruled
13 that 30 hours per year was acceptable at a neighbor’s property (See Exhibit
14 ____ (JSR-2). Thus, even though NARUC mentions a 30-minute limitation
15 to minimize annoyance, the literature supporting this recommendation is not
16 conclusive and it would appear the 30-hour limitation, which is more widely
17 adopted, is more effective at minimizing annoyance to non-participants
18 from shadow flicker.

19 **Q. Are there practical modeling limitations with using a 30-minute**
20 **threshold?**

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1 A. Yes. The shadow modeling software (WindPro) uses reduction assumptions
2 in which the amount of shadow flicker is refined when used to predict
3 annual shadow exposure but not for daily exposure.

4 As described in Appendix 24b of the October 2018 Application,
5 *WindPRO* software was used to evaluate shadow flicker. The software uses
6 turbine locations, turbine dimensions, receptor locations, local topography,
7 wind direction frequency, and sunshine frequency to calculate both a
8 “worst-case” and an “expected case” shadow-flicker scenario. The “worst
9 case” shadow-flicker model outputs assumes no clouds or fog, wind
10 conditions allowing for continuous turbine operation, the turbine rotor is
11 continuously perpendicular to the sun, and the turbine rotor is positioned
12 between the receptor and the sun. The “expected case” model runs the
13 analysis utilizing a monthly reduction factor for average sunshine and wind
14 directions, although the blades are still modeled to be moving during all
15 daylight hours when the sun’s elevation is more than 3 degrees above the
16 horizon. The *WindPro* software reports shadow flicker in days per year,
17 hours per year, and max hours per day within the “worst case” scenario
18 while only hours per year are reported under the “expected case” scenario
19 because a monthly reduction factor is utilized and no daily reduction factor
20 exists (see Attachment B to Appendix 24b of the October 2018

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1 Application). When assessing receptors for meeting the 30-hour / year
2 threshold the “expected case” scenario is used since this represents more
3 realistic conditions.

4 **Q: What has your experience been with shadow flicker limits in New**
5 **York?**

6 A: As stated elsewhere in this testimony, the Siting Board ruled that 30 hours
7 per year for non-participants was an acceptable standard. Prior to Article
8 10, in our experience in New York, 30 hours per year was a common
9 threshold considered by local jurisdictions with operating projects in their
10 review under local zoning and the State Environmental Quality Review Act.
11 As far as we know, there has never been a successful court challenge to this
12 standard in New York.

13 **Q: Has the Siting Board adopted a 30-minute shadow flicker standard in**
14 **other proceedings?**

15 A. No. To date only one wind project has been approved by the Siting Board
16 (Case No. 14-F-0409), and the certificate includes a 30-hour annual
17 threshold for shadow flicker (Condition 30).

18 **Q: Are there additional recent studies relevant to the topic of shadow**
19 **flicker thresholds?**

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1 A: Yes. The Community Noise and Health Study conducted by Health Canada
2 (Voicescu et. al, 2016. *Estimating annoyance to calculated wind turbine*
3 *shadow flicker is improved when variables associated with wind turbine*
4 *noise exposure are considered.*
5 <https://asa.scitation.org/doi/10.1121/1.4942403>). One aspect of this study
6 evaluated annoyance from wind turbine noise and shadow flicker of
7 randomly selected participants (1,238 participants located between 0.25
8 kilometers and 11.22 kilometers from operational wind turbines). This
9 study concluded that when modeled shadow flicker minutes are evaluated
10 alone (without other annoyance variables such as noise and blinking lights)
11 it provides an inadequate model for estimating annoyance to shadow flicker.

12
13 **Q: Do you have any additional comments regarding shadow flicker?**

14 A: Yes. In his testimony, CMORE Member Timothy Brown outlines concerns
15 with how shadow flicker is modeled on his residence. He believes the
16 “surface dimensions of an entire dwelling would probably produce a lot
17 more hours of flicker than CWE claims”. The receptor size used in this
18 analysis is industry standard and is the recommendation of WindPro (the
19 modeling software). The WindPRO 3.3 User Manual (available at:
20 <http://help.emd.dk/knowledgebase/>) states “The default parameters of Im

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1 *[meter] height and 1m width window, 1m above the ground level can be*
2 *considered as a standard description of typical windows.”* The analysis was
3 conducted using “Green House” mode, which is described in the WindPro
4 3.3 User Manual as “*the receptor will not face any particular direction,*
5 *but instead will face all directions. This is useful if the actual properties of*
6 *the receptor are unknown or if there are wind turbines on more sides of the*
7 *house that may contribute to the flickering impact”*. Based on our
8 experience, it is industry standard to use these parameters in the initial
9 modeling and analysis of shadow flicker.

10 Following final turbine model selection and layout finalization, the
11 Applicant will prepare an updated shadow flicker analysis. If shadow flicker
12 is modeled to exceed 30 hours per year at any non-participating residences,
13 a “Phase II” shadow flicker analysis will be conducted, which will take into
14 account any screening by existing yard trees, buildings, or proximity to
15 stands of trees and the number and/or orientation of windows in residential
16 receptors. If needed after receiving a complaint, the following mitigation
17 options are available: 1) work with the landowner to become a Facility
18 participant, 2) planting of trees or installation of window blinds to block the
19 shadow flicker, or 2) operational curtailment of turbines so that the 30 hour

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1 per year threshold is not exceeded. These mitigation options can be easily
2 implemented even after the Facility has been constructed.

3 **Q. Does this conclude your testimony at this time?**

4 **A. Yes.**

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2 BY MR. DAX: (Cont'g.)

3 Q. Mr. Runner, with the testimony
4 where there are 2 exhibits, one is a C.V. of yourself
5 consisting of 2 pages and one being a document titled
6 Danish Wind Industry Association, shadow casting from
7 turbines consisting of also 2 pages. Do you recall
8 those exhibits?

9 A. I do.

10 MR. DAX: Your Honor, those exhibits
11 have been previously marked as Exhibit 32 and 33.

12 A.L.J. LEARY: Thank you.

13 MR. DAX: And so I established -- I've
14 already asked you about whether you -- whether this
15 is truthful and accurate so I guess I will move this
16 into evidence.

17 A.L.J. LEARY: Any objections? So
18 admitted.

19 MR. DAX: Witness is available for
20 cross-examination.

21 A.L.J. LEARY: Anybody have cross-
22 examination for this witness? Mr. Mullen, we have --

23 MR. MULLEN: I don't need to explain.
24 I can -- I can ask him the questions.

25 MR. DAX: You don't have to.

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2 A.L.J. LEARY: You don't have to, but
3 I -- you're not going to get him -- if you don't
4 reach some deal with Mr. Miller you're not going to
5 get a chance to --

6 MR. MULLEN: Okay. Fair enough. I
7 have --

8 A.L.J. LEARY: -- have at this witness
9 again so I would --

10 MR. MULLEN: Sure, I have few
11 questions.

12 A.L.J. LEARY: -- suggest you take
13 advantage of that now.

14 MR. MULLEN: Your Honor, I also have
15 one question on behalf of Mr. Sharkey.

16 A.L.J. LEARY: Okay.

17 CROSS EXAMINATION

18 BY MR. MULLEN:

19 Q. Good morning.

20 A. Good morning.

21 Q. Have you identified how many non-
22 participating properties may experience over 30 hours
23 a year of shadow flicker?

24 A. We have.

25 Q. And how many was that, do you

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2 recall?

3 A. I'll have to look at my
4 testimony. Actually, I'll have to look at, I believe
5 the exhibit that was prepared. So I'm looking at
6 Canisteno -- Canisteo Wind update portions of exhibit
7 -- Appendix 24B Shadow Flicker Report dated May 21st,
8 2019 that was submitted with the application
9 supplement.

10 MR. DAX: Which is part of Hearing
11 Exhibit 7.

12 THE WITNESS: Hearing Exhibit 7.

13 A.L.J. LEARY: Thank you, Mr. Dax.

14 THE WITNESS: So that shadow flicker
15 model was run using a worst case scenario as far as
16 number of turbine sites and the turbine model so in
17 this case shadow flicker generates model to increase
18 with a larger rotor diameter so we use the GE158 and
19 it had the same total tip height as the other models
20 proposed.

21 A.L.J. LEARY: I'm sorry, the GE there
22 should be a something point something before 158. So
23 what is that, those 2 numbers with the decimal point
24 between them?

25 THE WITNESS: I guess for our analysis

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2 we didn't assume a megawattage, we use a, you know,
3 the program uses the size and dimensions of the
4 turbine so.

5 A.L.J. LEARY: So Mr. Dax, which of
6 the --

7 MR. DAX: I believe it's the 5.3 but I
8 think Mr. Runner's testimony is that it doesn't
9 matter for purposes of shadow flicker analysis.

10 A.L.J. LEARY: It matters for me. So
11 I understand the kind of what is in your group of
12 selected or options, turbine options that might
13 translate to this particular exhibit in the
14 application so that --

15 MR. DAX: 5.3 megawatts.

16 A.L.J. LEARY: Okay. So if you choose
17 that one this is translatable. I assume if you
18 choose any of them it's somewhat translatable, but
19 it's a pretty good match, right?

20 MR. DAX: Yes.

21 A.L.J. LEARY: Okay. Sorry.

22 THE WITNESS: Sorry. It's all right.
23 Under that scenario assuming 158 meter rotor diameter
24 at all 117 turbines sites the model predicted 154
25 receptors may experience shadow flicker over 30 hours

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2 a year.

3 A.L.J. LEARY: 154?

4 THE WITNESS: That is correct.

5 BY MR. MULLEN: (Cont'g.)

6 Q. Did you say that was for
7 participating or non-participating?

8 A. Oh, I'm sorry, that is across the
9 board.

10 Q. Could you categorize that into
11 participating versus non-participating?

12 A. I believe I can, yes. So of that
13 154, 85 of the receptors are participating.

14 Q. So it's -- it's close to half of
15 them that are non-participating.

16 A. That's correct. 48 percent.

17 Q. Okay. Of the non-participating
18 receptors, do you believe that the vegetative
19 obstacles are going to reduce them below 30 hours a
20 year?

21 A. There is a potential for that to
22 occur, but without running the analysis I won't know
23 that for sure. However, I will say based on other
24 analyses that I've done for similar projects, you
25 know, using all the final layout that's, you know,

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2 choosing the final number of turbines and the final
3 turbine type in conjunction with vegetation and
4 obstacles, it's -- that's a scenario that often
5 results in some -- that number reducing.

6 Q. So wasn't there some testimony
7 that it would reduce those though?

8 A. I don't believe so. If you could
9 point me to that then I could probably speak to that.

10 Q. Okay. I don't -- I don't
11 remember the exact place, I just had thought
12 generally that was what your -- at least the
13 implication had been throughout.

14 A.L.J. LEARY: I'm going to ask the
15 witness to review his testimony to locate that place,
16 and if Mr. Dax and Mr. Mullen want to help him out,
17 feel free to do so, but this is your testimony.

18 THE WITNESS: Sure.

19 A.L.J. LEARY: Find out --

20 THE WITNESS: Yeah.

21 A.L.J. LEARY: -- where in your
22 testimony if it is anywhere this is.

23 MR. MULLEN: If -- if -- yeah, if you
24 haven't testified to it. Yeah, it was in the
25 application.

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2 THE WITNESS: It's in the shadow
3 flicker report, right, yeah --

4 MR. MULLEN: Okay.

5 A.L.J. LEARY: Okay.

6 THE WITNESS: -- I just got to that
7 section here. So we utilized the vegetation viewshed
8 that was prepared as part of the V.I.A. for the
9 project and --

10 A.L.J. SHERMAN: Sorry, could the
11 witness identify where in the report --

12 THE WITNESS: I'm sorry. Yes.

13 A.L.J. SHERMAN: It's not in your
14 testimony, correct?

15 THE WITNESS: This is not in my
16 testimony, this is on Page 9 of the -- I'm trying to
17 remember the exhibit number we provided for this.

18 A.L.J. LEARY: 24B?

19 THE WITNESS: Exactly. But --

20 A.L.J. SHERMAN: Hearing Exhibit 7.

21 THE WITNESS: Exhibit 7, yeah.

22 A.L.J. LEARY: I'm sorry.

23 THE WITNESS: It's on Page 9 of the
24 Exhibit 7, we explain how we, you know, starting
25 there and continuing on to Page 10 we explained how

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2 we, you know, use the vegetation viewshed and overlay
3 that with the receptors and then, you know, ones that
4 were shown to be not having -- potentially not having
5 project visibility within that's not be subject to
6 shadow flicker or have less shadow flicker.

7 BY MR. MULLEN: (Cont'g.)

8 Q. So did you help prepare that
9 analysis?

10 A. I utilized the V.I.A. that was
11 prepared as part of the -- of the viewshed analysis
12 that was prepared --

13 Q. Okay.

14 A. -- for the V.I.A.

15 Q. Are you familiar with what -- the
16 mitigation options that have been proposed for
17 flicker?

18 A. I am, yes.

19 Q. Okay. And could you explain
20 those generally?

21 A. Sure. So I believe there's 3
22 options that we outlined in the report. And I'm just
23 going to switch to that page. So I'm looking at Page
24 17 of Exhibit 7, the last paragraph prior to
25 references, so we outlined 3 potential options, you

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2 know, work with the landowner, become a participant
3 in the project, you know it would be planting trees
4 or installation of window blinds and then the third
5 would be operational for turbine.

6 MR. DAX: And just for clarity. This
7 is a part of exhibit -- Hearing Exhibit 7, it's
8 Appendix 24B.

9 A.L.J. LEARY: Appendix 24.

10 MR. DAX: B.

11 A.L.J. LEARY: Thank you.

12 BY MR. MULLEN: (Cont'g.)

13 Q. Under what circumstances would
14 curtailment be used?

15 A. I guess, that would be a basis of
16 the complaint resolution plan which I -- I can't
17 speak to.

18 Q. Do you have a general idea on --
19 on the order that you would intend to go through to
20 mitigate flicker issues?

21 A. I mean, that would also be the --
22 the applicant's choice.

23 Q. But you're not familiar with that
24 procedure?

25 A. No, we just --

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2 Q. Okay.

3 A. -- outlined potential mitigation
4 options.

5 Q. Are you familiar with what any of
6 the other projects are doing for mitigation?

7 A. I've seen similar, you know,
8 options presented --

9 Q. Uh-huh.

10 A. -- but again I'm not familiar
11 with what, you know, their curtailment or their --
12 their options are for, you know, their levels of, you
13 know, did they do this first and this and this.

14 Q. Okay. And then in your shadow
15 flicker analysis that was performed for the -- for
16 the properties that may experience greater than 30
17 hours a year, did that include cumulative impacts
18 from other projects?

19 A. It did.

20 MR. MULLEN: I have -- I don't have
21 any other questions.

22 A.L.J. LEARY: Anyone else? I'm going
23 to ask the witness just some clarifying questions,
24 but I'm looking at you because I think you're going
25 to know the vegetation viewshed analysis, did -- do

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2 you have a hearing exhibit number to which that has
3 been assigned --

4 MR. DAX: That is --

5 A.L.J. LEARY: -- which is part of the
6 V.I.A.?

7 MR. DAX: Yeah, that's part of the
8 V.I.A. and there is -- it is part of exhibit -- it's
9 Appendix 24A and it was filed on -- it was part of
10 the supplement --

11 A.L.J. LEARY: Right.

12 MR. DAX: -- the application
13 supplement filed on January 28th, 2019 which said
14 D.M.M. 156.

15 A.L.J. LEARY: But it's not part of
16 Exhibit 7 or it is part of Exhibit 7?

17 MR. DAX: No, it was filed earlier
18 than Exhibit 7.

19 A.L.J. LEARY: I'm not finding even 7
20 on this list, but --

21 MR. DAX: There is -- there is an
22 update with the Hearing Exhibit 7 also an appendix
23 24A which may have -- which had something related to
24 the viewshed overlay, I'm not sure if it was an exact
25 replacement of that or something more qualitative. I

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2 don't have it in front of me. Yeah, the -- the
3 update would be in Hearing Exhibit 7, Appendix 24A.

4 A.L.J. LEARY: It is a part of 7.

5 MR. DAX: Right, that's a part of 7.

6 A.L.J. LEARY: Same problem as
7 yesterday with Exhibit 1. So we can talk about that
8 just before the site visit. Okay. What is the --
9 why is it 30 hours a year that seems to be that magic
10 number of above which it is not preferred?

11 THE WITNESS: So 30-hours generally
12 represents 1 percent of daylight hours in a year. So
13 that's one basis for it. Besides that and kind of
14 being a standard that has been adopted over time
15 that's about -- this could have been answered as a I
16 have for you.

17 A.L.J. LEARY: So it is some kind of a
18 standard that everybody kind of works around, is that
19 -- or every one professionally that has expertise
20 like you do recognizes that as the number of the
21 hours?

22 THE WITNESS: That's correct.

23 A.L.J. LEARY: Is -- is that a health-
24 based number, annoyance-based number, what -- how did
25 that -- how did that number happen?

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2 THE WITNESS: I believe it's more of
3 an annoyance-based number.

4 A.L.J. LEARY: Okay. You mentioned
5 that you had seen what other projects were doing on
6 mitigation, is it basically the same 3 options for
7 the other projects?

8 THE WITNESS: Yes, let me rephrase
9 that. On other projects that I've prepared shadow
10 flicker reports both in New York, Ohio and other
11 states, those are the options that we have agreed to
12 with applicants that are feasible for them to
13 implement.

14 A.L.J. LEARY: But I am asking you
15 just a slightly different question which is --

16 THE WITNESS: Okay.

17 A.L.J. LEARY: -- what, once the
18 project's built, what it -- what are the regulators
19 requiring? what is the preferred sequence or what is
20 the preferred option?

21 THE WITNESS: Yeah, so usually when it
22 comes to the compliance phase of the project, our
23 role is -- is less into the complaint resolution
24 aspect of it which would be, you know, determining
25 which of those options is implemented rather it's we

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2 run the analysis and provide the data to the client
3 or the state agencies in those cases. And then the
4 client takes it from there and determines which
5 mitigation measures gets implemented. That's
6 something we're not privy to and usually at that
7 point we're just kind of left in the dark.

8 A.L.J. LEARY: Well, I -- I'm trying
9 to get at the question of what other regulators are
10 doing including in New York to your knowledge or
11 other states, is -- are they -- are they accepting
12 these three in this sequence or are they saying, no,
13 you're going to go right to window blinds or
14 plantings, I thought I saw something about planting
15 some kind of foliage to block, is that -- that's not
16 in these options, right?

17 THE WITNESS: Yeah, it is. So
18 planting of trees and installation of window blinds.

19 A.L.J. LEARY: I see.

20 THE WITNESS: I see. And again
21 unfortunately I'm not -- I am not sure at those
22 stages in the project which way, you know, other
23 state agencies have a preference for which things get
24 implemented.

25 A.L.J. LEARY: Okay. So they just

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2 leave it to the applicant, to your knowledge?

3 THE WITNESS: Yeah, I mean I -- again,
4 I'm not sure, you know, that would -- maybe be a
5 question that could be directed towards the Applicant
6 in this case, it maybe the --

7 A.L.J. LEARY: I'm asking you.

8 THE WITNESS: Okay.

9 A.L.J. LEARY: So if you don't know
10 just say you don't know, but if you know something
11 about what I'm asking you about you got to tell me.

12 THE WITNESS: Yeah, no, that's fair.
13 I do not know.

14 A.L.J. LEARY: Okay. That's perfect.
15 Thank you.

16 THE WITNESS: Yeah.

17 A.L.J. LEARY: Anybody, do you want to
18 re-direct as a result? Mr. Mullen.

19 BY MR. MULLEN:

20 Q. Yes. Mrs. Spencer gave -- I had
21 another question that I'd like to ask. For the
22 breakdown that you gave us of the 154 receptors
23 between the participating and non-participating, do
24 you know -- did those -- those numbers include
25 cumulative flicker, the ones that were --

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2 A. No, I don't believe so.

3 Q. Those did not?

4 A. No.

5 Q. Okay.

6 A. So --

7 Q. Thank you.

8 A.L.J. LEARY: Any other questions for
9 this witness?

10 A.L.J. SHERMAN: Just -- just one
11 quick --

12 THE WITNESS: Yes, Your Honor.

13 A.L.J. SHERMAN: -- that one reminded
14 me, the 154 receptors across the board, you said 85
15 was participating?

16 THE WITNESS: That is correct.

17 A.L.J. SHERMAN: You said that would
18 be 52 percent, that does not seem to be
19 mathematically correct? Could it be 55 percent?

20 THE WITNESS: It could potentially be
21 that, yeah.

22 A.L.J. SHERMAN: Is there a figure on
23 there or you just --

24 THE WITNESS: I have written here 85
25 which is 52 percent, however, that could have been an

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2 error. A typographical error.

3 A.L.J. SHERMAN: Okay. But the
4 numbers are correct?

5 THE WITNESS: The 85 is correct, yes.

6 A.L.J. SHERMAN: Okay. Thank you.

7 A.L.J. LEARY: Which leaves 79 non-
8 participating?

9 THE WITNESS: That math seems to be
10 correct, yes.

11 A.L.J. LEARY: This is never ending,
12 but so --

13 THE WITNESS: It's all right.

14 A.L.J. LEARY: -- more than 30 hours a
15 year will you give me for the non-participating, the
16 upward, the highest number of hours per year for non-
17 participating?

18 THE WITNESS: Yeah, so we have it in
19 the table that's presented as Table 1, summary of
20 receptors predicted to experience shadow flicker, we
21 have it categorized into different -- different
22 groups. So the highest non-participating number for
23 a, what's categorized as a Category 1 residence is a
24 -- is 60 hours and 37 minutes.

25 A.L.J. LEARY: And can you, based on

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2 that table, tell me how many non-participating are
3 between 30 and 50 hours? And if you need to break it
4 down 30 to 40 or 40 to 50 --

5 THE WITNESS: Yeah.

6 A.L.J. LEARY: -- feel free to do
7 that. I'm just trying to shorten this --

8 THE WITNESS: Little counting here so
9 to help me with my breaking up my counting. From 30
10 to 40 hours is 19 and these are Category 1 --

11 A.L.J. LEARY: Yeah.

12 THE WITNESS: -- year-round
13 residences.

14 A.L.J. LEARY: What about 40 to 50?

15 THE WITNESS: There's 12.

16 A.L.J. LEARY: And 50 to 60.

17 THE WITNESS: 9.

18 A.L.J. LEARY: And I'm not getting to
19 79, are there -- how many are above 60 hours?

20 THE WITNESS: These are just for
21 category one residences. So then if we move to the
22 next category of --

23 A.L.J. LEARY: I'm -- I'm sorry.

24 THE WITNESS: Yeah.

25 A.L.J. LEARY: It's greater than 30,

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2 but I was assuming.

3 The WITNESS: For all --

4 A.L.J. LEARY: Yes.

5 THE WITNESS: -- categories. Okay.

6 A.L.J. LEARY: Yes. Yes.

7 THE WITNESS: So for all categories
8 there's 32 in the 30 to 40 hours. And if you could
9 kindly remind me what my next --

10 A.L.J. SHERMAN: 40 to 50?

11 THE WITNESS: Yeah, what was the --
12 the number I've provided?

13 A.L.J. LEARY: You came out with 19,
14 I'm sorry, 12.

15 A.L.J. SHERMAN: 12.

16 THE WITNESS: 12, okay. Was that
17 Number 17?

18 A.L.J. LEARY: Say again?

19 THE WITNESS: 17.

20 A.L.J. LEARY: 17. At 40 to 50 hours?

21 THE WITNESS: Yeah.

22 A.L.J. LEARY: And then 50 to 60?

23 THE WITNESS: And what was my starting
24 number there?

25 A.L.J. LEARY: 32. Oh, your starting

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2 is 9.

3 THE WITNESS: Thank you. So it's 13.

4 A.L.J. LEARY: And then 60 plus or 60
5 to -- I think you said the highest was ranged that
6 you said Category 1. Is there another category that
7 has a higher than 60 hours and 37 minutes?

8 THE WITNESS: There is, yeah. So
9 let's say 60 to 7 -- 70.

10 A.L.J. LEARY: Yeah.

11 THE WITNESS: It's 4.

12 A.L.J. LEARY: Do you have any above
13 70?

14 THE WITNESS: We do, yeah. So there's
15 -- there's one Category 4 residence in the 94 hours.

16 A.L.J. LEARY: 94 hours, there's one
17 at 94. Okay. What do you have in the 70 to 80?

18 THE WITNESS: There's nothing in the
19 70 to 80 for non-participating and nothing for 80 to
20 90.

21 A.L.J. LEARY: Okay. I'm still not
22 getting up to 79 of 67 but --

23 MR. DAX: Your Honor, could I clarify?
24 The number should be 69, 1 --

25 A.L.J. LEARY: I see.

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2 MR. DAX: -- 154 minus 85 is 69.

3 A.L.J. LEARY: Right.

4 MR. DAX: Non-participants.

5 A.L.J. LEARY: Okay. Thank you. I'm
6 closer to that number but I'm still not there but
7 that's okay. So just to review, these are just non-
8 participating?

9 THE WITNESS: These are just non-
10 participating, correct.

11 A.L.J. LEARY: You have 32 at 30 to 40
12 hours, 17 at 40 to 50 hours, 13 at 50 to 60, 4 at 60
13 to 70, 0 at 70 to 80 and 1 at 80 to 90. I'm sorry, 0
14 at 80 to 90 and then 90 to 100 you have 1. Does that
15 sound right, Mr. Dax?

16 MR. DAX: I've -- I have not been
17 keeping track.

18 A.L.J. LEARY: Okay. Does that sound
19 right, Mr. --

20 THE WITNESS: Yeah.

21 A.L.J. LEARY: Okay. Do you have
22 anything else?

23 A.L.J. SHERMAN: I do not.

24 MR. DAX: I have, I have just one --

25 MR. WISNIEWSKI: Your Honor, I also

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2 have additional follow up question --

3 A.L.J. LEARY: Oh, I'm sorry.

4 MS. VIGARS: D.P.S. has a follow-up as
5 well.

6 A.L.J. LEARY: Okay.

7 MR. DAX: I'll go last, I hope.

8 A.L.J. LEARY: I think you should.

9 BY MR. WISNIEWSKI:

10 Q. Mr. Runner, in response to Judge
11 Leary's question about the basis for the 30-hour
12 standard, did -- did you testify that it is not a
13 health-based standard?

14 A. That is correct.

15 Q. And instead you testified it's an
16 annoyance-based standard.

17 A. That is correct.

18 Q. So is it your testimony that
19 annoyance is not a health issue?

20 MR. DAX: Objection. He is not a
21 health expert, hasn't been offered as such. He
22 testified that -- testified based upon his knowledge,
23 but he's not offering health, we got a testimony that
24 would have been a question for a different witness.

25 A.L.J. LEARY: I'm going to overrule

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2 that if the witness can respond because it's a fair
3 question based upon his previous response.

4 THE WITNESS: Can you repeat the
5 question, please?

6 BY MR. WISNIEWSKI: (Cont'g.)

7 Q. Is it your testimony that
8 annoyance is not a health issue?

9 A. Yes.

10 Q. Would you agree that the 30-hour
11 standard that's set forth in the National Association
12 of Regulation Utility Commissioners 2012 guidelines
13 titled, Wind Energy and Wind Park Siting and Zoning
14 Best Practices and Guidance's for States?

15 A. I recall that document.

16 Q. And do you know whether or not
17 the 30-hour standard is set forth in that document?

18 A. Out of memory I do not.

19 A.L.J. LEARY: Do you know to show the
20 witness what you're referring to, Mr. Wisniewski?

21 MR. WISNIEWSKI: I only have it
22 online, Your Honor. I brought it up as they're
23 listed in the testimony.

24 A.L.J. LEARY: Did we have -- is this
25 NARUC 20 --

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2 MR. WISNIEWSKI: 2012.

3 A.L.J. LEARY: -- 12, do we have that
4 admitted yet?

5 MS. VIGARS: There may be a citation
6 to it in Mr. Davis' testimony, but the document is
7 not attached in the exhibit.

8 A.L.J. LEARY: Okay. That's okay.
9 I'm just trying to help the witness and he's not able
10 to without the document being in front of him, I
11 think, respond to that question Mr. -- Mr.
12 Wisniewski.

13 MS. O'TOOLE: Do you want me to put it
14 on my screen and show on my laptop?

15 MR. WISNIEWSKI: Sure. Your Honor,
16 while -- while Ms. O'Toole was pulling it up for the
17 witness, can I just make one additional comment for
18 the record?

19 A.L.J. LEARY: Yeah.

20 MR. WISNIEWSKI: I think in light of
21 the witness' uncertainty about whether or not the 30-
22 hour standard is based on health concerns, I think
23 this illustrates the importance of having the
24 Department of Health take a more active role in these
25 proceedings. I've been personally disappointed that

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2 the D.O.H. has not provided any testimony in this
3 proceeding. And they're looking up for the record
4 that are not here today, it will be extremely useful
5 if they were here to weigh in and whether or not 30-
6 hour is sufficient to protect public health.

7 A.L.J. LEARY: Thank you. So noted
8 for the record. I think that the best thing that I
9 can say is I -- you need to tell someone that can do
10 something about that who is not in this room --

11 MR. WISNIEWSKI: Understood, Your
12 Honor.

13 A.L.J. LEARY: -- including Judge
14 Sherman and I. The Department of Health, I believe,
15 is the Siting Board member and has been actively
16 involved in a number of cases, particularly on the
17 issue of noise. This is something that I believe
18 that the Commissioner of the Health Department may be
19 very interested in hearing. And that is something
20 that you should feel free to raise to that agency
21 because certainly whatever enhances the Siting
22 Board's record is going to be beneficial to this
23 process and beneficial to the Siting Board as well as
24 the examiners and all parties including the
25 applicant. So thank you for raising that and that's

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2 the best I can do for you.

3 MR. DAX: Your Honor, can I just, I
4 think Mr. Wisniewski misspoke when he characterized
5 the witness as being uncertain as to whether this was
6 a health or annoyance standard. The witness said
7 that his understanding is that it's an annoyance
8 standard, not a health standard. It didn't reflect
9 any uncertainty into his -- his understanding.

10 A.L.J. LEARY: I think what Mr.
11 Wisniewski was getting at was, you know, that's the -
12 - that's the million dollar question is annoyance,
13 does annoyance constitute some health triggering
14 kinds of analysis and that's not for us and most of
15 the people in this room to determine, I think, Mr.
16 Wisniewski has his, you know, finger on the right
17 pulse that that is for the -- the health
18 professionals to address --

19 A.L.J. SHERMAN: To the extent that
20 the testimony conflicts with Mr. Wisniewski's
21 representation, the transcript will reflect that.

22 A.L.J. LEARY: Right.

23 MR. DAX: Yeah, but I --

24 A.L.J. LEARY: I heard --

25 MR. DAX: -- I can't allow

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2 mischaracterization to go, it's not my nature to just
3 --

4 A.L.J. SHERMAN: Yeah, I -- I
5 understand that, Mr. Dax.

6 A.L.J. LEARY: Yeah, we -- we heard
7 what the witness said. And I think what he said was
8 he did not consider annoyance to be a health effect,
9 or I guess, something, worse to that effect and I
10 don't mean to mischaracterize at all. So where are
11 we?

12 MS. MEAGHER: Your Honor, may I be
13 heard?

14 A.L.J. LEARY: Ms. Meagher.

15 MS. MEAGHER: Just in reference to
16 contacting the D.O.H., I did post a letter on D.M.M.
17 regarding that exact issue that there has been very
18 little participation on the part of the Department of
19 Health.

20 A.L.J. LEARY: And I did see that
21 comment. And again, I don't know what the Department
22 of Health looks at on our website for this
23 proceeding. But my, you know, my advice to you is
24 the same as a government, you know, employee for
25 however many years which I hate to admit, but you

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2 want to direct it to someone who can do something
3 about that, you want to direct what your request is
4 and I'm not suggesting they'll do something about it,
5 I'm just saying that that comment we are going to
6 consider and I'm sure the Department of Health will
7 know about it.

8 MS. MEAGHER: But as far as CMORE,
9 this is one of our biggest concerns is the health and
10 safety of the people that are living very close to
11 these turbines and these issues seem to repeatedly go
12 unaddressed.

13 A.L.J. LEARY: Okay. Where are we?
14 Are you -- have you completed your questioning or is
15 Ms. O'Toole --

16 MS. O'TOOLE: It's done.

17 MR. WISNIEWSKI: Your Honor, if I may
18 proceed, it will -- it will be brief.

19 A.L.J. LEARY: And just for the
20 record, would you again say what NARUC 2012 in its
21 full title is?

22 MR. WISNIEWSKI: Yes, Your Honor, and
23 Mr. Dax, feel free to correct me if I'm getting it
24 wrong.

25 BY MR. WISNIEWSKI:

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2 Q. Mr. Runner, in front of you on a
3 computer do you have a document titled Wind Energy
4 and Wind Park Siting and Zoning Best Practices and
5 Guidance for Research year 2012 published by the
6 National Association of Regulatory Utility
7 Commissioners?

8 A. Yes.

9 Q. And are you familiar with that
10 document?

11 A. I had seen this document before.

12 Q. And is that document available
13 publicly on the internet?

14 A. Looking at it on a web page, I
15 believe so.

16 MR. WISNIEWSKI: Your Honor, I'd ask
17 the presiding examiners take judicial notice of this
18 document.

19 A.L.J. LEARY: Is there any problem
20 with us actually admitting this document since it is
21 a NARUC document? Does anybody have an objection to
22 admitting this document as a part of the hearing
23 exhibit? The witness has testified he recognizes it,
24 he --

25 MR. DAX: Right. I would normally

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2 object, but you didn't -- my objections didn't
3 succeed in -- in the cross examination of our noise
4 panel so I'm not going to object on this one.

5 A.L.J. LEARY: Well, what would your
6 objection be to admission of this document if your
7 witness has just indicated he recognizes it?

8 MR. DAX: I don't think recognition is
9 enough to lay a foundation, but it seems to be so I'm
10 not going to make an issue out of it.

11 A.L.J. LEARY: Well, what -- if you
12 want something further I think Mr. Wisniewski is
13 going to ask a few questions on it, I personally
14 think it's enough that he --

15 MR. DAX: Then I -- then I think
16 that's --

17 A.L.J. LEARY: -- he recognized, we
18 can't talk at the same time. I think it's enough
19 that the witness recognizes it, but let Mr.
20 Wisniewski proceed and I'll hear whatever objection
21 you want to so.

22 MR. DAX: I have no objection. I'm
23 not making an objection.

24 MR. WISNIEWSKI: Your Honor, I'm happy
25 to proceed if there is no objection.

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2 A.L.J. LEARY: Okay. No, there's no
3 objection, it's admitted.

4 THE REPORTER: Can we get a number,
5 Your Honor?

6 A.L.J. LEARY: We're going to call it
7 218 and it'll be added to the list of hearing
8 exhibits.

9 THE REPORTER: Thank you, Your Honor.

10 MR. WISNIEWSKI: Mr. Runner, perhaps
11 with Ms. O'Toole's help, can you scroll down to the
12 PDF page marked Page 27?

13 BY MR. WISNIEWSKI: (Cont'g.)

14 Q. Is the heading on the top of that
15 page Guidelines for Implementing Wind Park Siting and
16 Zoning Criteria and Setback Distances?

17 A. You're indicating the page number
18 on the bottom of the page?

19 Q. Yes, page number on the bottom of
20 the page which corresponds to PDF Page 50.

21 A. Thank you. I'm there.

22 Q. Does the page in front of you
23 contained a table titled Table 6, Wind Park Siting
24 and Zoning Criteria recommended approaches and
25 setbacks distances?

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2 A. It does.

3 Q. Does the second material column
4 of the table contain information about shadow
5 flicker?

6 A. It does.

7 Q. I'm sorry, the second row, not
8 the second column, let the record reflect.

9 A. The --

10 Q. The second row says shadow
11 flicker.

12 A. The first -- yes, yes. First
13 column of the second row.

14 Q. And is the second column of that
15 row titled Recommended Approach?

16 A. It is.

17 Q. And for shadow flicker is the
18 recommended approach restricts not more than 30 hours
19 per year or 30 minutes per day in occupied buildings?

20 A. That's what the document states.

21 MR. WISNIEWSKI: I have no further
22 questions, Your Honor.

23 A.L.J. SHERMAN: I'm sorry, Mr.
24 Wisniewski -- sorry about the name there. I got a
25 PDF page, but what is the document page?

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2 MR. WISNIEWSKI: The document page --
3 so the PDF has 27 at the bottom of the page, but it's
4 Page 50 in the PDF so.

5 A.L.J. SHERMAN: Understood. And we
6 will need a hard copy to be supplied as well so.

7 MR. WISNIEWSKI: Can -- can I supply
8 that by email, Your Honor --

9 A.L.J. LEARY: Sure.

10 MR. WISNIEWSKI: -- to all the parties
11 right now?

12 A.L.J. LEARY: Make sure all the
13 parties are copied. Are you -- are you finished with
14 your --

15 MR. WISNIEWSKI: No further questions,
16 Your Honor.

17 A.L.J. LEARY: And anyone else?

18 MS. VIGARS: Yes.

19 A.L.J. LEARY: I'm sorry, Ms. Vigars.

20 THE WITNESS: Is that the end of my
21 testimony?

22 MS. VIGARS: No, I'm sorry.

23 THE WITNESS: All right.

24 BY MS. VIGARS:

25 Q. I'm going to hand you a document

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2 that is the prepared corrected testimony of Andrew
3 Davis. This is where the full reference to the NARUC
4 standard is provided to clarify the record and
5 provide some ease to all the parties. We have the
6 hyperlink in here. So what I'd like to do is hand
7 you Mr. Davis' testimony so you can read the full
8 title of the document and confirm that the website
9 listed in his testimony is the same that you're
10 referring to on the laptop. Is that you're
11 comfortable doing that?

12 A. Yeah.

13 Q. Thank you. So I'm referring to
14 Mr. Davis' corrected testimony, page 11, lines 10
15 through 18. Can you just identify the professional
16 citation listed in the testimony in those lines?

17 A. Yes, it's the National Regulatory
18 Research Institute for the National Association of
19 Regulatory Utility Commissioners (NARUC), put it
20 there Wind Energy and Wind Park Siting and Zoning
21 Best Practices for States 2012. Available at --

22 Q. You know what, here's what I'd
23 like to do. Please look at the website written out
24 in the testimony and then look at the website address
25 and the electronic document you're viewing on the

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2 laptop, can you confirm they're similar?

3 A. They're not similar.

4 Q. They're not similar.

5 A. Sorry. The one on the website
6 starts with pubs.naruc.org. The one on the --
7 provided in Mr. Davis' testimony starts with an
8 nrri.org.

9 A.L.J. LEARY: I cannot assume that --

10 MS. VIGARS: I can withdraw.

11 A.L.J. LEARY: -- they're the same
12 document, but it sounds --

13 MS. VIGARS: That's absolutely fine.

14 A.L.J. LEARY: -- like they are.

15 MS. VIGARS: Yes.

16 THE WITNESS: yeah.

17 A.L.J. LEARY: So I'm going to ask the
18 witness, are you --

19 THE WITNESS: It's probably -- sure,
20 the documents are available on many locations.

21 A.L.J. LEARY: Okay.

22 MS. VIGARS: Okay.

23 A.L.J. LEARY: All right. Mr. --

24 MS. VIGARS: I'm sorry. I do have 2
25 quick substitute questions.

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2 A.L.J. LEARY: Sure, sorry.

3 BY MS. VIGARS: (Cont'g.)

4 Q. Referring you back to the
5 numerical breakdown of non-participating landowners
6 that we went through previously pursuant to the
7 A.L.J.'s questions, do you recall that line of
8 questioning?

9 A. I do, yes.

10 Q. Okay. Those numbers that you
11 were referring to -- and again, that's the number of
12 non-participating residences that were above 30 hours
13 and we did classifications 40 to 50 hours, 50 to 60
14 hours, et cetera. Are those numbers of non-
15 participating residences, were they the expected
16 impacted residences or the worst case residences?

17 A. They were based on the results
18 from the modeling software. It's labeled expected
19 case.

20 Q. So those are the --

21 A. Those are the expected case
22 numbers.

23 Q. In the Exhibit 7, Hearing Exhibit
24 7 that we referred to which is Appendix 24B, that
25 document provides columns that detail worst case and

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2 expected. Can you confirm that?

3 A. Yes.

4 Q. Okay.

5 A. So the exhibit or Appendix 24B
6 provides the expected case. It provides predicted
7 shadow flicker days per year and predicted daily
8 shadow flicker hour and minutes per day.

9 Q. Does that document also provide
10 the expected case and the expected worst case values
11 of shadow flicker?

12 A. It does not. Are you on 24A, the
13 original one?

14 Q. Is this 24A, the original? Yes.

15 A. Okay. I can look at that.

16 Q. Can you explain the discrepancy -
17 - I'm sorry. I'm sorry, 24B of the original shadow
18 flicker analysis.

19 A.L.J. LEARY: When you say original -
20 -

21 MS. VIGARS: Filed as part of the
22 original application.

23 A.L.J. SHERMAN: So part of Exhibit 1.

24 MS. VIGARS: Part of Exhibit 1.

25 A.L.J. LEARY: Part of Exhibit 1.

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2 BY MS. VIGARS: (Cont'g.)

3 Q. So I'm referring to the shadow
4 flicker report October 2018.

5 A. Okay.

6 Q. Can you turn to that document?

7 A. I have that document in front of
8 me, yes.

9 Q. Okay. Can you confirm that that
10 was filed as part of the original application?

11 A. It was.

12 Q. Okay. So this is in reference to
13 Exhibit 1, Hearing Exhibit 1, Appendix 24B, correct?

14 A. Yes.

15 Q. Okay. Turning to that document,
16 the shadow flicker analysis provides values for both
17 the expected shadow flicker and the worst case shadow
18 flicker, is that correct?

19 A. As appendices, yes.

20 Q. Okay. Can you identify which
21 appendices?

22 A. I do not have the appendices in
23 front of me, but I can look at the table of contents
24 and I should be able to tell you.

25 Q. Okay.

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2 A. So it would be attachment B
3 WindPRO Overview Reports and Calendars.

4 Q. Okay. So the number breakdown we
5 were discussing earlier in your testimony pursuant to
6 the A.L.J.'s questioning. Are those numbers --
7 again, are they the expected shadow flicker values or
8 the worst case shadow flicker values?

9 A. They are the expected shadow
10 flicker values.

11 Q. Thank you. How do those figures
12 compared to the 30-hour standard?

13 A. As in -- I guess I'm not clear on
14 what the question is.

15 Q. Okay. You testified in response
16 to a question from A.L.J. Leary that 30 hours per
17 year was a standard for exposure to shadow flicker,
18 correct?

19 A. Correct.

20 Q. Is that 30 hours per year the
21 worst case or the expected case exposure?

22 A. Expected case.

23 Q. Thank you.

24 A.L.J. LEARY: We're going to take a
25 quick break.

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2 MS. VIGARS: Okay.

3 A.L.J. LEARY: I had a request to the
4 lady to my left running the show. So if we could
5 just do that and come back --

6 MS. VIGARS: We can do that.

7 A.L.J. LEARY: -- to --

8 MS. VIGARS: I'll confirm whether we
9 have anything further or if we're concluded.

10 A.L.J. LEARY: Okay. And then I think
11 Mr. Dax has some re-direct.

12 MS. VIGARS: Okay.

13 A.L.J. LEARY: Okay. Let's take a
14 quick break.

15 MS. VIGARS: Okay.

16 (Off the record, 10:31 to 10:47)

17 A.L.J. LEARY: Ms. Vigars, do you have
18 any additional questions for this witness?

19 MS. VIGARS: We have nothing further.

20 A.L.J. LEARY: Okay.

21 MS. VIGARS: Thank you.

22 A.L.J. LEARY: Anybody else? Okay.

23 Mr. Dax, your call --

24 MR. DAX: Yes, thank you.

25 A.L.J. LEARY: -- re-direct?

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2 MR. DAX: Yes.

3 RE-DIRECT EXAMINATION

4 BY MR. DAX:

5 Q. Mr. Runner, you went through a
6 series of questions about various numbers of
7 receptors that would have shadow impacts, do you
8 recall that?

9 A. I do.

10 Q. And were those numbers based upon
11 a screening analysis that did not account for
12 vegetation?

13 A. Those numbers were not based on a
14 screening analysis.

15 Q. They were based on --

16 A. The assumption that, you know,
17 there's no -- no obstacles blocking.

18 Q. I meant screening in a different
19 sense of the word.

20 A. Sorry.

21 Q. Let me clarify. Were -- were
22 those numbers given on the basis of a modeling
23 analysis that did not account for vegetation?

24 A. That is correct.

25 Q. And vegetation may block shadows

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2 from falling on some of those receptors, is that
3 correct?

4 A. That is correct.

5 Q. Would you turn to what has been
6 identified as this part of exhibit hearing -- Hearing
7 Exhibit 7, it's Appendix 24.B memo, Part of Exhibit
8 24 that was updated and filed on May 24th. Do you
9 have that in front of you?

10 A. I do.

11 Q. And I see there, it's a -- it's
12 in the form of a memorandum from you to Eric Miller
13 dated May 21st, 2019, is that correct?

14 A. That is correct.

15 Q. Would you turn to Page 10 of that
16 report, of that memorandum?

17 A. Okay.

18 Q. And would you read the first full
19 paragraph opening sentence?

20 A. The viewshed analysis indicates
21 that 139 of the 154 receptors predicted to experience
22 over 30 hours of shadow flicker will not have views of
23 the project after taking to account the screening
24 provided by buildings, trees and other objects large
25 enough to be resolved by Lidar Technology.

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2 Q. Would you explain what you mean
3 by the viewshed analysis in that sentence?

4 A. Yes, so the -- there was a
5 viewshed analysis that was conducted. It took into
6 account, you know, shows where turbines may or may
7 not be visible based on existing obstacles in the
8 environment including trees.

9 MR. DAX: Nothing further.

10 MR. WISNIEWSKI: Your Honor, I have a
11 follow-up question.

12 A.L.J. LEARY: Okay, Mr. Wisniewski.

13 BY MR. WISNIEWSKI:

14 Q. Mr. Runner, you just mentioned
15 Lidar Technology?

16 A. I believe you misheard that, I
17 said the --

18 Q. Can you re-read the paragraph Mr.
19 Dax had you read before or can we have it read back?

20 A. Yeah, it's the viewshed analysis
21 indicates that a 139 of the 154 receptors predicted
22 to experience over 30 hours of shadow flicker will
23 not have views of the project after taking into
24 account the screening provided by buildings, trees
25 and other objects large enough to be resolved by

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2 Lidar Technology. And resolved in this instance is
3 meant to indicate that they could be picked up by
4 Lidar Technology.

5 A.L.J. LEARY: What kind of
6 technology?

7 THE WITNESS: Lidar. So it's a --

8 A.L.J. LEARY: So hold on. Could you
9 spell that for the record, please?

10 THE WITNESS: It's L-I-D-A-R.

11 BY MR. WISNIEWSKI: And Mr. Runner, to
12 your knowledge, does that mean that only objects
13 large enough to be resolved by Lidar would be large
14 enough to block the shadow flicker?

15 A. I'm not sure if that's the case.

16 Q. Can you please explain how Lidar
17 is relevant to the mitigation?

18 A. To mitigation?

19 Q. Yeah.

20 A. I mean, this was not necessarily
21 a kind of mitigation, but I guess in a way it is. So
22 Lidar is, you know, it provides a better resolution
23 for existing objects in the environment. So it
24 allows you to indicate if there's -- for screening
25 trees, other buildings that might, you know, provide

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2 a blocking mechanism for views from a given grid cell
3 to a turbine.

4 MR. WISNIEWSKI: No further questions,
5 Your Honor.

6 MR. DAX: Your Honor, I have one
7 question to make some clarity on this issue.

8 BY MR. DAX:

9 Q. Mr. Runner, was -- was Lidar used
10 to further refine the modeling that had indicated
11 that the numbers that we've been talking about
12 earlier as to how many receptors would receive
13 shadows?

14 A. In the context that it was used
15 to develop a viewshed, yes.

16 Q. Thank you.

17 MR. DAX: Okay.

18 A.L.J. LEARY: So what is the assumed
19 height? This is the mystery for me. What is the
20 assumed height of the vegetation that may block the
21 number of hours of shadow flicker?

22 THE WITNESS: So using Lidar
23 Technology, it provides a height of those features,
24 exact height so you don't have to use an assumed
25 height.

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2 A.L.J. LEARY: Okay. And does that
3 technology indicate that -- let me ask you this. Is
4 there a model that -- that this all goes into and
5 spits out what you just testified about?

6 THE WITNESS: In a couple of ways so
7 that the viewshed analysis that was prepared for the
8 V.I.A., right, you know, we use G.I.S. and overlay
9 that on to the receptors that, you know, were
10 identified in the shadow flicker model. So not
11 directly those 2 pieces aren't put together and then
12 spit out result.

13 A.L.J. LEARY: Okay. Do you want to
14 do anything else?

15 MR. DAX: No.

16 A.L.J. LEARY: Any other questions for
17 this witness, Mr. Wisniewski?

18 MR. WISNIEWSKI: Yes, Your Honor.

19 BY MR. WISNIEWSKI:

20 Q. Mr. Runner, when were the Lidar
21 measurements taken?

22 A. So as stated on Page 9 of this
23 exhibit that we've been discussing in the last
24 paragraph, I'll read the sentence and then that'll
25 provide some clarity, or the portion. So the New

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2 York State G.I.S. program office, light detection and
3 ranging data for Allegany and Steuben Counties 2016.

4 Q. And it's fair to say that the
5 Lidar data has not been updated since 2016?

6 A. That's something I'm not aware
7 of.

8 Q. Would you be able to provide a
9 breakdown by percentage of how much of the screening
10 is being provided by vegetation, buildings or other
11 objects?

12 A. That data is not in my report.

13 MR. WISNIEWSKI: No further questions,
14 Your Honor.

15 A.L.J. LEARY: That data is not in
16 your report but would you be able to -- do you have
17 that kind of data even if it's not in your report?

18 THE WITNESS: I'm not sure if you can
19 break out, you know, the individual cover types. I
20 imagine given the type of software, you probably can,
21 but that's not under my --.

22 A.L.J. LEARY: Okay. Thank you. Mr.
23 Dax?

24 MR. DAX: Nothing further.

25 A.L.J. LEARY: Nothing further? Okay.

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2 Thank you very much.

3 THE WITNESS: Thank you, Your Honors.

4 A.L.J. LEARY: The witness is excused.

5 Okay. On to, let's see --

6 MR. WISNIEWSKI: Your Honor, can I be
7 heard on another issue?

8 A.L.J. LEARY: Oh, yes.

9 MR. WISNIEWSKI: With regard to the
10 testimony that was just given about health issues?
11 We've been reviewing the D.M.M. docket and it appears
12 that there are 2 filings from the Department of
13 Health that are relevant to this issue that are not
14 currently in the record. To bring them into the
15 record, we have a few ideas, but the first I would
16 propose is that we'd be granted leave to call Ms.
17 Mona Meagher to the stand as a witness.

18 We believe she's familiar with the
19 documents or can testify whether she is or not and we
20 believe she'd be allowed, she would -- she could lay
21 a foundation that would allow them to be admitted
22 into evidence.

23 A.L.J. LEARY: Well, let's do this as
24 easy -- easily as we can because I actually think Mr.
25 Dax is not going to have a problem with this, but I

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2 could be dead wrong. So let's identify the 2
3 documents to which you are referring, number 1, and
4 then let's hear from the other parties about whether
5 this is something we got -- we have to get crazy
6 about to call -- and call Ms. Meagher. Not that
7 that's any reflection on you, Ms. Meagher, it's just
8 that we have still quite a bit to do today. And so
9 what are the -- what are the documents by name and if
10 you have the D.M.M. numbers?

11 MS. WISNIEWSKI: Your Honor, the first
12 documents is titled response to CMORE letter from the
13 Department of Health and the D.M.M. item number is
14 241.

15 A.L.J. LEARY: And the date of that
16 response to CMORE letter?

17 MR. WISNIEWSKI: 7/12/2019.

18 A.L.J. LEARY: And what's the other
19 document?

20 MR. WISNIEWSKI: Bear with me while I
21 go down to it. Thank you. The second document is
22 D.O.H., that's Department of Health comments filed by
23 the New York State Department of Health D.M.M. item
24 number 40.

25 A.L.J. LEARY: And what is the date of

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2 that document?

3 MR. WISNIEWSKI: January 26th, 2018.

4 A.L.J. LEARY: And those are D.O.H.
5 comments on --

6 MR. WISNIEWSKI: Those are D.O.H.
7 comments on the preliminary scoping statement which
8 are referenced by the D.O.H. letter which was filed
9 after the application was filed.

10 A.L.J. LEARY: Okay. So Mr. Dax,
11 there are 2 D.O.H. documents that are filed in
12 D.M.M., and the question is whether we can get them
13 into this hearing record along with some other things
14 that are in D.M.M. that I think are listed.

15 MR. DAX: I have no objection to those
16 2 documents being marked as exhibits. They're on
17 D.M.M., they're public. I -- I have no objection.

18 A.L.J. LEARY: Okay. Anyone else want
19 to be heard on those two documents, any objection to
20 those being included in the hearing record?

21 MS. PAULSEN: No, Your Honor.

22 MS. VIGARS: I'd just like to confirm
23 that both documents were filed by Department of
24 Health, did I hear that correctly?

25 A.L.J. LEARY: Yes.

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2 MR. WISNIEWSKI: That's correct.

3 MS. VIGARS: D.P.S. has no objection.

4 Thank you.

5 A.L.J. LEARY: Mr. Mullen, any
6 objection?

7 MR. MULLEN: No objection.

8 A.L.J. LEARY: Okay. Having heard no
9 objection, I'm going to add to the exhibit list as
10 Exhibits 218. Is that correct?

11 MS. O'TOOLE: 219.

12 MS. SENLET: 219.

13 A.L.J. LEARY: Where is 218?

14 MS. O'TOOLE: 218 was the -- what was
15 emailed, Your Honor.

16 A.L.J. LEARY: Thank you. I'm looking
17 over at my pile here and so 219 and 220.

18 MS. WISNIEWSKI: And Your Honor, do
19 you want me to email copies of those to all parties?

20 A.L.J. LEARY: Does anybody need Mr.
21 Wisniewski to email these documents?

22 MR. DAX: They're on D.M.M. I don't
23 need them.

24 A.L.J. LEARY: They're on D.M.M., I
25 don't think it's necessary, but I will have them

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2 printed out and put in the official exhibit pile that
3 I have over here --

4 MS. O'TOOLE: Thank you, Your Honor.

5 A.L.J. LEARY: -- so that they will be
6 certainly considered. Okay. Where are we?

7 MS. O'TOOLE: Which will be 219 and
8 which will be 220?

9 A.L.J. LEARY: 219 will be the first
10 that Mr. Wisniewski discussed which was the July
11 12th, 2019 D.O.A. res -- D.O.H.'s response to CMORE
12 letter. 220 will be the January 26th, 2018 D.O.H.
13 comments on the preliminary scoping statement.

14 MS. O'TOOLE: Thank you, Your Honor.

15 A.L.J. LEARY: Okay. We have next, I
16 think, we're going to save Mr. Hecklau for just
17 before the site visit. So we have Mr. Woodcock next,
18 I believe.

19 MR. DAX: It's fine, yes.

20 A.L.J. LEARY: Is that okay?

21 MS. SENLET: Yes, Your Honor.

22 A.L.J. LEARY: Okay. Mr. Woodcock,
23 are you here?

24 MR. WOODCOCK: Yes.

25 A.L.J. LEARY: Great. Would you raise

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2 your right hand, please? Do you swear that the
3 testimony you're about to give is the truth and the
4 whole truth?

5 MR. WOODCOCK: Yes, I do.

6 WITNESS; GORDON WOODCOCK, Sworn

7 A.L.J. LEARY: Would you state your
8 name and affiliation for the record?

9 THE WITNESS: Gordon Woodcock with
10 Invenergy.

11 A.L.J. LEARY: Thank you. And your
12 witness.

13 BY MS. SENLET:

14 Q. Good morning, Mr. Woodcock, how
15 are you?

16 A. Doing well, thanks.

17 Q. Mr. Woodcock, in front of you do
18 you have a document titled direct -- corrected
19 rebuttal testimony of Gordon Woodcock?

20 A. I do.

21 Q. Originally filed July 31st,
22 corrected August 2nd.

23 A. Yes.

24 Q. And that document consists of 29
25 pages, is that correct?

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2 A. Yes.

3 Q. And that document also has 8
4 exhibits attached to it, is that correct?

5 A. Yes. Just make sure I have them
6 all. Yeah.

7 Q. Aside from the corrections that
8 were made on August 7th, do you have any corrections
9 to your rebuttal testimony, Mr. Woodcock?

10 A. Yes, I have one. Let me find it.
11 On Page 15 lines 6 through 8 we indicate we mailed
12 Mr. Sharkey an updated notice of filing as part of
13 D.M.M. item number 155. He was not on that
14 particular mailing. He did receive a separate
15 notification, but it was not that one.

16 Q. How would you correct your
17 testimony, if you can walk us through the lines?

18 A. An updated notice of filing and
19 advisement of upcoming open houses sent in January
20 2019.

21 Q. Do you have any other corrections
22 to your testimony, Mr. Woodcock?

23 A. No, I do not.

24 MS. SENLET: Your Honor, I have a
25 procedural question and just wanted to figure out how

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2 we can work it out. In Mr. Woodcock's testimony he
3 does identify in the rebuttal testimony that Mr.
4 Woodcock and Department of Agriculture and Department
5 of Agriculture and Markets staff, Mr. Saviola were
6 going to meet, they were about to meet right before
7 this testimony was filed. That meeting has occurred.

8 And if you look at Mr. Woodcock's
9 testimony page 3, there is a table that lays out what
10 happened right before that meeting. Mr. Woodcock and
11 Mr. Saviola met last Wednesday and they came to some
12 kind of agreement for all of the items that are
13 listed on that table. I have been in communications
14 with Mr. Wells -- Ms. Wells, the attorney for them.
15 So we would like to get the outcome of that meeting
16 into record. And I shared that with Ms. Tara Wells,
17 she needs to share it with Mr. Saviola, I don't see
18 that she will have any objections. My understanding
19 is that with those corrections she still does not
20 need to cross examine this witness. We are talking
21 as we speak because she needs to clarify things with
22 Mr. Saviola.

23 For procedurally how would you prefer
24 for that correction to that table? Would you like
25 Mr. Woodcock to identify them right now in the record

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2 or would you like us to prefer -- provide in writing?

3 A.L.J. LEARY: Ms. Wells is not here -
4 -

5 MS. SENLET: Correct, Your Honor.

6 A.L.J. LEARY: -- to be heard on this.
7 And I assumed that's because there was a meeting
8 between Mr. Saviola and the witness. I'm surmising
9 that.

10 MS. SENLET: Uh-huh.

11 A.L.J. LEARY: The best way to
12 proceed, you're free to ask him today.

13 MS. SENLET: Uh-huh.

14 A.L.J. LEARY: And I don't -- subject
15 to objection which I don't anticipate we will hear,
16 but let's see. You're free to ask him about what
17 that purported agreement is, but without Ms. Wells
18 here, it's a little unusual to do that.

19 A second option would be to submit
20 either with your post-hearing brief or more
21 immediately so the parties don't have to address it
22 in their briefs, whatever that agreement is, whatever
23 that revised table is so in written form and you can
24 move it as an exhibit into the hearing record at that
25 time, as a hearing exhibit. As -- as a revision to

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2 his or an update to his testimony. So I'm concerned
3 that Ms. Wells isn't here to sort of sit next to you
4 and propose --

5 MS. SENLET: Uh-huh.

6 A.L.J. LEARY: -- what the procedure
7 would be. Anybody have any input on this at all? It
8 sounds like there's a deal reached, is that correct?

9 MS. SENLET: That's correct.

10 A.L.J. LEARY: But that deal was not
11 signed, sealed and delivered?

12 MS. SENLET: In writing right now.
13 I'm waiting on an email from Ms. Wells saying we go
14 ahead.

15 A.L.J. LEARY: Okay. So it's not a
16 deal. If it's not in writing --

17 MS. SENLET: It was -- it was --
18 correct.

19 A.L.J. LEARY: -- it's not a deal.

20 MS. SENLET: It was an oral -- oral
21 agreement that we have reached last night.

22 A.L.J. LEARY: Not a deal among
23 lawyers. It's not deal. So you can't ask this
24 witness anything about that.

25 MS. SENLET: If we may do it this way,

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2 once we have the deal in writing, we will admitted --
3 we will ask to be admitted into evidence. We won't
4 wait until the hearing -- further hearing documents,
5 we will just do it immediately today or tomorrow --

6 A.L.J. LEARY: Terrific.

7 MS. SENLET: -- as soon as we have it.
8 And I will send it to all the parties. Ms. Tara
9 Wells will be also included in that list. And I will
10 ask her if she -- looking at that exhibit though
11 she's still not anticipate any -- any cross
12 examination for this witness and then she can
13 respond.

14 A.L.J. LEARY: Let's put aside her
15 right to cross examine this witness because she's
16 going to have that right after this hearing if all --
17 everything falls apart, that has been going on
18 between you. The limitation on your questioning this
19 witness without Ms. Wells here is that this witness
20 may not say or testify that there's a deal reached
21 between Ag & Markets and the applicant. This witness
22 can't say what Canisteo Wind now proposes that will
23 update that testimony. That's what that witness can
24 say. You cannot talk about a deal, however, or ask
25 questions about any agreement or anything Mr. Saviola

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2 or Ms. Wells has said because they're not here. And
3 I suspect they're not here because you, in good
4 faith, both of you worked out something that is an
5 agreement or tentative agreement.

6 So can you proceed in that way, feel
7 free to update his testimony verbally with Canisteo
8 Wind's new position?

9 MS. SENLET: We can do that, Your
10 Honor. And then we'll follow up with a red line
11 version of the testimony.

12 A.L.J. LEARY: Yeah, I wouldn't do
13 that. I would -- I would create a whole document
14 that simply revises that table consistent with what
15 you and Ms. Wells and Mr. Saviola and the applicant
16 agreed to file that as a hearing exhibit --

17 MS. SENLET: Okay.

18 A.L.J. LEARY: -- standalone hearing
19 exhibit. And Ms. Wells needs to have agreed to that
20 in writing for us to see in order for you to file and
21 get that admitted, okay? That's -- I think that's
22 the best way to approach it.

23 MS. SENLET: Easiest way to approach
24 it. Are you comfortable going through the table
25 today Mr. Woodcock?

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2 THE WITNESS: I believe so, yes.

3 A.L.J. LEARY: Okay. Terrific. But I
4 want the record to reflect that this testimony does
5 not reflect any agreement with the Department of
6 Agriculture and Markets because they're not here to
7 concur and indicate that such an agreement has been
8 reached. Okay?

9 MS. SENLET: Understood, Your Honor.

10 A.L.J. LEARY: And good luck. I hope
11 it actually gets finished soon.

12 MS. SENLET: Before we move on to
13 that, should we finish everything else and then I
14 will ask questions about his rebuttal testimony?

15 A.L.J. LEARY: Yeah.

16 BY MS. SENLET: (Cont'g.)

17 Q. Mr. Woodcook, I was asking you,
18 besides the issues that we have discussed, do you
19 have any other corrections or additions to your
20 testimony that was filed, corrected on August 7th,
21 2019?

22 A. No, I do not.

23 Q. If I've already asked you the
24 question, same questions today, would your answers be
25 the same?

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2 A. Yes, they would.

3 Q. Do you affirm that testimony and
4 the exhibits attached therein are true and accurate
5 to the best of your knowledge?

6 A. Yes, I do.

7 Q. Mr. Woodcock --

8 MS. SENLET: Before we move on, I
9 would like to move Mr. Woodcock's rebuttal testimony
10 corrected August 7th, 2019 and the 8 exhibits that
11 are attached to the testimony into evidence, Your
12 Honor. And the exhibit numbers that were pre-
13 assigned for Mr. Woodcock's rebuttal testimony are 34
14 through 41.

15 A.L.J. LEARY: Thank you.

16 BY MS. SENLET: (Cont'g.)

17 Q. Mr. Woodcock, have you also
18 sponsored --

19 A.L.J. SHERMAN: I'm sorry, did you
20 move those in?

21 MS. SENLET: Yes, would like to,
22 right.

23 A.L.J. LEARY: Any objections? So
24 admitted.

25 BY MS. SENLET: (Cont'g.)

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2 Q. Mr. Woodcock, have you also
3 sponsored part -- parts of the application that was
4 submitted by Canisteo Wind Energy, LLC?

5 A. Yes, in pre-hearing or, I guess,
6 pre-hearing testimony, have exhibit 2, 3, 4, 6, 13,
7 18, 25 and 31 from the Article 10 permit application.

8 Q. Is there anything else that you
9 provided as part of the application, Mr. Woodcock?

10 A. I don't believe so.

11 Q. Okay.

12 MS. SENLET: And Your Honor, those
13 were identified as exhibit -- Hearing Exhibit 1 as
14 part of the application that was filed in November of
15 2016.

16 A.L.J. LEARY: What part of 1? I
17 heard very quickly --

18 MS. SENLET: Okay.

19 A.L.J. LEARY: I just --

20 MS. SENLET: Do you want me to just
21 lay them out again, the exhibits --

22 A.L.J. LEARY: No, I think they're in
23 the record.

24 MS. SENLET: -- under the application.

25

**STATE OF NEW YORK BOARD ON
ELECTRIC GENERATION SITING AND THE ENVIRONMENT**

-----	X	
	:	
In the Matter of	:	
	:	
CANISTEO WIND ENERGY LLC	:	Case 16-F-0205
	:	
Application of Canisteo Wind Energy LLC for a	:	
Certificate of Environmental Compatibility and Public	:	
Need Pursuant to Article 10 for Construction of a	:	
Wind Project Located in Steuben County.	:	
	:	
-----	X	

**PREPARED REBUTTAL
TESTIMONY OF GORDON WOODCOCK**

July 31, 2019
Revised on August 7, 2019 and August 21, 2019

Gordon Woodcock
Invenergy LLC
One South Wacker Drive, Suite 1800
Chicago, Illinois 60606

Case 16-F-0205

Gordon Woodcock
Invenergy, LLC

1 **Q. Have you previously filed testimony in this proceeding?**

2 A. Yes, testimony that was pre-filed with the Canisteo Wind Application.

3 **Q. What is the purpose of this testimony?**

4 A. To respond to testimonies filed by CMORE, John Sharkey, and his expert,
5 Mr. Nolt as they relate to community outreach, project participation, and
6 shadows. I will also respond to testimonies filed on behalf of the
7 Department of Agriculture and Markets concerning access roads and
8 drainage terraces, and the Department of Public Service's Consumer
9 Services Panel regarding community outreach and the Public Involvement
10 Plan (PIP).

11 **AGRICULTURE AND MARKETS**

12 **Q. Have you reviewed the direct testimony filed by Michael Saviola of**
13 **Department of Agriculture and Markets?**

14 A. Yes.

15 **Q. How do you respond to his recommendations about changes to the**
16 **access road locations, ECS impacts to diversion terraces, and**
17 **recommendation for a full time qualified agricultural drainage**
18 **specialist?**

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Gordon Woodcock
Invenergy, LLC

1 A. Invenergy consulted directly with landowners to get feedback on project
2 component siting and incorporated that feedback into the layout submitted
3 on May 24, 2019. Two access roads identified by Mr. Saviola, one to
4 turbine 27 and one to turbine 32, were already shifted based on landowner
5 feedback. In addition to the responses to recommended access road
6 changes in the table below, CWE will reach out to Mr. Saviola to schedule
7 site visits with CWE representatives and landowners to discuss the
8 potential changes in more detail.

9 **Table 1: Agriculture and Markets Recommended Changes**

Access Road to turbine #	Requested Change	Invenergy Response
7	The access road leading to T-7 should be moved approximately 400 feet south and follow the edge of the field.	The grades seem reasonable; however, this location will introduce some temporary, possibly permanent impact to wetland 6D to accommodate the large turning radius.
27	The access road leading to T-27 should be moved approximately 250 feet north and run adjacent to an existing small hedgerow in order to avoid bisecting this field into two smaller fields	Adjusted road based on LO feedback received 1/29/18 to follow existing road; LO was not otherwise concerned about access road. The suggested shift places the intersection of the access road at a 10% grade. In order to accommodate this request, a much larger road re-alignment would be required here.
32	The access road to T-32 should be shifted to the north directly adjacent to the hedgerow.	Access road has been moved as far north as it can go already (based on LO feedback); due to the steep slopes in the area, and the depth of cut required, we will be grading away from the road at a 3:1 slope for approximately 70'. This will render this corner of the field unusable anyway
67, 68	The access road to T-66 and T-67 should be moved approximately 300 feet east and follow the edge of the woods in order to avoid dividing the field into two smaller fields.	We believe Mr. Saviola means T67 and T68 (T66 is on its own road and does not have the ability to shift 300' to the east): This shift seems appropriate, based on the existing grades. The road may not be able to be shifted quite this far as we approach T67, as the grades east to T67 become very steep.
128	The access road to T-128 should be shifted slightly to the west and follow the edge of the existing wooded hedgerow.	Shifting the road as suggested would shorten the road by approximately 100'. This change results in vertical road geometry that is not drivable by component delivery vehicles.

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Gordon Woodcock
Invenergy, LLC

1 **Q. How do you respond to Mr. Saviola’s concerns regarding drain tiles?**

2 A. In general, and as previously stated in CWE’s response to DAM-2
3 Exhibit__(GW-8), “The Applicant has sited the Facility to minimize
4 impacts to agricultural lands and infrastructure to the maximum extent
5 practicable. It is the Applicant’s intention to first avoid disturbing or
6 damaging subsurface drain tiles by meeting with landowners and
7 identifying the approximate location of such tiles (if possible) prior to the
8 installation of the buried collection lines. However, in the event that
9 damage to drain tiles occurs during the installation of the buried collection
10 system, the Applicant will confer with the landowner and repair the drain
11 tiles to as close to preconstruction conditions as possible unless those
12 structures are to be removed as part of the Facility design. The repair of
13 drain tiles will follow NYSDAM specifications.” For reference, CWE’s
14 drain tile repair specification may be found in the project site plans filed
15 May 24, 2019 on the DMM (DMM Item No. 217, cwe_11a_Preliminary
16 Design Drawings Part 7 -rev1.pdf, Drawing Number C-607, Detail 2).

17 **Q. How do you respond to Mr. Saviola’s concerns regarding diversion**
18 **terraces?**

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Gordon Woodcock
Invenergy, LLC

1 A. In general and as previously stated in CWE’s response to DAM-2, “The
2 Applicant has sited the Facility to minimize impacts to agricultural lands
3 and infrastructure to the maximum extent practicable. The Applicant has
4 met with landowners to identify areas where diversion terraces in
5 agricultural lands exist during the siting process. However, if damage to
6 diversion terraces occurs during the installation of the buried collection
7 system, the Applicant will repair the diversion terraces to preconstruction
8 conditions, unless these structures are to be removed as part of Facility
9 design, or as otherwise discussed with landowners. Any repairs made to
10 diversion terraces will be done in coordination with the local agriculture
11 extension office and NYSDAM as necessary to address any impacts to
12 diversion terraces.” For reference, CWE’s diversion terrace protection,
13 mat, and repair specifications may be found in the project site plans filed
14 May 24, 2019 on the DMM (DMM Item No. 217, cwe_11a_Preliminary
15 Design Drawings Part 7 -rev1.pdf, Drawing Number C-607, Details 3, 4,
16 and 5).

17 **Q. How do you respond to Mr. Saviola’s request for a full-time**
18 **agricultural drainage specialist to assist the Project Environmental**
19 **Monitor?**

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Gordon Woodcock
Invenergy, LLC

1 A. CWE agrees that proper repair of drain tiles and diversion terraces is an
2 important consideration and should be handled by personnel proficient in
3 such work; however, a full-time consultant is unnecessary given CWE's
4 commitment to work with landowners identifying and avoiding drain tiles
5 and diversion terraces wherever practicable. CWE welcomes NYSDAM
6 staff review of Project Environmental Monitor qualifications to ensure the
7 consultant has sufficient experience and knowledge related to agricultural
8 drainage and engineered structures such as drain tiles and diversion
9 terraces.

10 **CMORE**

11 **Q. Have you reviewed the direct testimony filed by CMORE for Timothy**
12 **Brown, Bruce Fry, and Jessica Lemay?**

13 A. Yes.

14 **Q. Mr. Fry testifies on behalf of himself, his wife, children, and**
15 **grandchildren that the project will impact him and his family. Does he**
16 **accurately state the project impacts on his property and negative**
17 **effects?**

18 A. No, not entirely. Based on the latest layout submitted May 24, 2019 the
19 Fry residence (receptor 323):

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Invenergy, LLC

- 1 • is predicted to have 47:51 hours of shadow hours per year instead
- 2 of 60 hours.
- 3 • The modeled noise at that receptor is 43.5 dBA ESL instead of 44
- 4 dBA.
- 5 • Turbines 66, 67, and 68 are approximately 1575 ft., 1950 ft., and
- 6 2210 ft from his residence and do comply with the Town of
- 7 Greenwood and Town of Jasper setbacks which are the towns
- 8 hosting those turbines.

9 Regarding, Mr. Fry's statement that the negative effects of wind turbines
10 outweigh the positive, New York state has determined in the Generic
11 Environmental Impact Statement and its supplement in PSC Case 13-E-
12 0302 that renewable energy including wind is needed and beneficial. The
13 Article 10 process authorizes the Siting Board to make similar
14 determinations on a project specific basis.

15 **Q. Mr. Fry states that he first heard about the project from CMORE in**
16 **January 2019. Did CWE send any information to Mr. Fry's residence**
17 **before that date and was any information mailed to the Fry residence**
18 **after January 2019?**

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Gordon Woodcock
Invenergy, LLC

1 A. Yes, as documented in Appendix 2c, rev 1 of the amended Article 10
2 permit application and on the DMM CWE sent out the following notices
3 that were mailed to the Fry residence:

4 1) CWE sent a mass mailing in August 2016 totaling 13,717 pieces
5 to area residents including all those in the 14839 postal code.

6 2) CWE sent a postcard in June 2017 to the listed stakeholders
7 which includes Bruce and Tamara Fry at the address listed in Mr. Fry's
8 testimony.

9 3) CWE sent notification in April 2019 of the Public Statement
10 Hearing to Bruce Fry again using the same address listed in Mr. Fry's
11 testimony. (2145 Alvord Hill Rd, Greenwood, NY 14839-9783.) (DMM
12 Item No. 194).

13 Additionally, the Applicant posted notices in area periodicals
14 intended to raise awareness of the Project and maintained a local office in
15 the Town of Canisteo starting in January 2018. Affidavits of publication
16 and copies of notices may be found on the DMM site (DMM item No.'s
17 18, 37, 54, 97, 137, 202, 205).

18 **Q. Mr. Fry indicates that he was incorrectly listed as a project**
19 **participant. How do you respond to that assertion?**

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Gordon Woodcock
Invenergy, LLC

- 1 A. As noted in Exhibit 6 of the Article 10 permit application, CWE assumed
2 (for the sake of Figure 19-1 and the maps and setback tables contained in
3 Exhibit 6) that “properties are considered participating if they have signed
4 an agreement with CWE or discussing such an agreement with CWE”.
5 CWE understands that those marked as “participating” because they are in
6 negotiations are under no obligation and may ultimately choose not to sign
7 an agreement and will ultimately be considered non-participating.
8 Following the production of the Turbine Setback Map – Jasper, provided
9 in April 2019 (in which the parcel is marked as a “Non-Participating
10 Property”) CWE identified a handful of parcels adjacent to project
11 facilities with which CWE intended to engage to see if they were
12 interested in participating in the project by signing a lease or setback
13 agreement. Mr. Fry’s parcel was among those prioritized for contact,
14 though after multiple attempts CWE was unable to make contact. Thus the
15 intended negotiations did not occur as anticipated. Given Mr. Fry’s
16 publicly stated concerns about the project, CWE no longer considers his
17 parcel to be “participating”.
- 18 **Q. Mr. Brown testifies on behalf of himself, his wife, children, and**
19 **grandchildren regarding concerns about shadow flicker interactions**

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Gordon Woodcock
Invenergy, LLC

1 **with CWE. Does he accurately represent the project impacts and**
2 **interactions?**

3 A. No, not entirely. Based on the latest layout submitted May 24, 2019 Mr.
4 Brown's residence (receptor 120) will receive 40:38 hours of annual
5 shadows as he mentions. Mr. Brown also states that he has not been
6 offered a good neighbor agreement. However, Mr. Brown has been
7 actively posting on the DMM site since August 2018 and strongly opposes
8 the project. Since August 2018 he has also been a frequent attendee of
9 town board meetings in Jasper and Canisteo during which he has voiced
10 opposition to the project. Mr. Brown was not initially contacted regarding
11 a setback agreement because his residence is approximately 2300' from
12 the nearest turbine. That said, CWE welcomes the opportunity to discuss a
13 setback agreement with Mr. Brown.

14 **Q. Mr. Brown also indicates that CWE has not responded to repeated**
15 **requests for additional information regarding shadows. Is that**
16 **accurate?**

17 A. No. As Mr. Brown states, he and Mona Meagher corresponded with CWE
18 multiple times regarding receptor identification and shadow hours.
19 Contrary to his assertion that it was a tedious process, a property owner

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Gordon Woodcock
Invenergy, LLC

1 could readily identify their receptor on the noise contour map and cross
2 reference that with the shadow hours provided in the shadow tables of
3 Appendix 24b. To further address their concerns and to provide other
4 options for identifying shadow hours at residences, I sent Ms. Meagher a
5 digital file on December 6, 2018 that enabled lookup of any receptor in the
6 project area based on address. Ms. Meagher showed proficiency with the
7 tool when I met with her and Mr. Brown on February 13, 2019 during
8 which she had a list of several receptors and their corresponding shadow
9 hours. CWE provided receptor tables grouped by town and listed
10 alphabetically by landowner at the April 16, 2019 public statement
11 hearings along with updated maps showing receptors in the six Project
12 towns. CWE has repeatedly responded to Mr. Brown and his CMORE
13 counterparts to provide accurate information and discuss project concerns
14 with them.

15 **Q. Ms. Lemay indicates she had misleading discussions with an**
16 **Invenergy representative, Tim Bizarro, regarding a setback waiver.**
17 **Do you have any knowledge of this?**

18 A. We contacted the Lemays in 2017 to see if they were interested in
19 participating in the project. My understanding of this interaction is that

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Invenergy, LLC

1 Mr. Bizarro spoke with Ms. Lemay and her husband a few times both on
2 the phone and in person regarding their potential participation in the
3 project by signing a setback waiver. Mr. Bizarro indicated that the
4 payment terms can be frontloaded so that the landowner can choose to
5 receive payments through sixteen years that equal the same net present
6 value as the original offer of payments over a 40-year term. I have not
7 heard any other complaints from area landowners asserting misleading
8 business practices by Mr. Bizarro or any other Project representative, nor
9 would Invenergy tolerate such behavior. We encourage landowners to
10 consult with counsel before signing agreements and have paid legal fees
11 for such consultations when landowners sign agreements.

12 **Q. Are there any other aspects of Ms. Lemay's testimony that you would**
13 **like to address?**

14 A. Yes, Ms. Lemay states that she first became aware of the project in
15 November 2017 when contacted via mail by Mr. Bizarro. That may be Ms.
16 Lemay's first acknowledged receipt of Canisteo material; however, as
17 documented in Appendix 2c, rev 1 of the amended Article 10 permit
18 application and on the DMM CWE sent out the following notices that
19 were mailed to the Lemay residence:

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- 1 • CWE sent a mass mailing in August 2016 totaling 13,717 pieces to
2 area residents including those in the 14885 postal code.
- 3 • CWE sent a postcard in June 2017 to listed stakeholders including
4 the Lemay residence at 3072 Prutsman Road in Troupsburg.

5 In addition, following the November 2017 contact the following
6 notifications occurred:

- 7 • CWE mailed a notification of the application filing on or about
8 October 2018 to the Lemay residence as indicated on the Affidavit
9 of Service (DMM Item No. 154).
- 10 • CWE sent an updated notice of filing and advisement of upcoming
11 Open Houses to the Lemays in January 2019 as specified in the
12 Affidavit of Service (DMM Item No. 155)
- 13 • CWE sent notification in April 2019 of the Public Statement
14 Hearing to Jessica & Mark Lemay using the address 3072
15 Prutsman Rd, Troupsburg, NY 14885-9613. (Affidavit of Mailing,
16 DMM Item No. 194)

17 Additionally, the Applicant posted notices in area periodicals intended
18 to raise awareness of the Project and maintained a regularly staffed local
19 office in the Town of Canisteo starting in January 2018. Affidavits of

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1 publication and copies of notices may be found on the DMM site (DMM
2 item No.'s 18, 37, 54, 97, 137, 202, 205). Finally, I corresponded directly
3 with Ms. Lemay by email and notified her on January 3, 2019 of the
4 January 29 and 30, 2019 open houses.

5 **JOHN SHARKEY – PUBLIC PARTICIPATION**

6 **Q. Have you reviewed the direct testimony filed by John Sharkey?**

7 A. Yes.

8 **Q. Mr. Sharkey testifies on behalf of himself as an individual party about**
9 **public involvement, visual impacts, socioeconomic effects,**
10 **environmental justice, and local laws and ordinances. He also**
11 **recounts his history and involvement in the project. Do you have any**
12 **comments regarding his statements regarding public involvement?**

13 A. Regarding communication between CWE and Mr. Sharkey, his testimony
14 contains contradictions and attempts to misleadingly portray CWE as non-
15 communicative for extended periods of time. He states that following an
16 initial Project notification from a neighbor in summer of 2016 and
17 subsequent consultation with Invenergy's local representative, Marguerite
18 Wells, Mr. Sharkey, "... did not hear anything further about CWE until a
19 friend... informed me that a meeting was being held on March 13, 2018,"

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1 yet later on page 14 of his testimony he acknowledges attending an open
2 house on July 18, 2017. Beyond that, the following notifications were sent
3 to his part-time residence in Troupsburg:

- 4 • A notification of the application filing on or about October 2018
5 (DMM Item No. 154).
- 6 • An advisement of upcoming Open Houses sent in January 2019.
- 7 • A notification sent in April 2019 of the Public Statement Hearing
8 (Affidavit of Mailing, DMM Item No. 194).

9 All mailings were sent to his Troupsburg address which is approximately
10 8700' from the nearest proposed wind turbine sites (sites 101 and 102).

11 Also, as indicated elsewhere in his testimony Eric Miller and I met
12 with Mr. Sharkey on July 17, 2018 (not 2017 as he indicates) at his
13 residence in Troupsburg, and following that, I met briefly with Mr.
14 Sharkey at Corning, Inc.'s headquarters in the morning of September 20,
15 2018. There were additional conversations at the Visual Impact
16 Assessment Community Meeting on August 2, 2018 at the Jasper-
17 Troupsburg Junior-Senior High School and at the Canisteo Open House on
18 January 29, 2019. CWE frequently communicated with Mr. Sharkey both
19 as an individual expressing his concerns about turbine locations and

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1 separately in his self-proclaimed role as a community liaison and President
2 of CMORE.

3 **Q. Mr. Sharkey outlines several issues associated with CWE Open**
4 **Houses and indicates that CWE failed to make information accessible**
5 **to the public. Does he accurately represent the Open Houses and**
6 **CWE's efforts to encourage public involvement?**

7 A. No. Mr. Sharkey mentions an issue with one of the Visual Simulations at
8 the January 2019 Open House. Jake Runner from EDR and I reviewed the
9 photo-simulation with Mr. Sharkey and noted that more turbines were
10 shown in the simulation than should have been based on the viewshed
11 shown in the legend. While CWE strives to accurately present information
12 to stakeholders Mr. Sharkey's complaint in this case is that CWE
13 exaggerated the Project's visual impacts in one of our graphics.

14 Mr. Sharkey also states that he was not provided any information
15 about the Article 10 process, potential environmental impacts, or how
16 people can participate or receive intervenor funding. CWE staff engage
17 personally and professionally with all Open House attendees. At a
18 minimum, Open Houses have:

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- 1 • detailed maps outlining noise impacts, visual impacts, and turbine
- 2 locations,
- 3 • informational flyers outlining the Project and intervenor funding,
- 4 • stakeholder sign-up cards,
- 5 • official Project filings (PIP, PSS, Article 10 application and
- 6 supplements on file at time of Open House), and
- 7 • Invenergy staff and consultants on-hand to answer any procedural,
- 8 technical, or general questions posed by attendees.

9 I spoke with Mr. Sharkey directly at the January 2019 Open House and
10 did not mention the Article 10 process or intervenor funding to him
11 knowing that he was well aware of the details based on my previous
12 discussions with him and his participation in CMORE. Mr. Eric Miller
13 from Invenergy and Mr. Jake Runner from EDR also spoke with Mr.
14 Sharkey but may not have mentioned the Article 10 process for similar
15 reasons. However, people unfamiliar with the Project are provided ample
16 information about Article 10 and intervenor funds. Indeed, Mr. Sharkey
17 himself has been involved in the intervenor funding request process, and
18 despite the opposition from the local towns, Mr. Sharkey has been
19 awarded intervenor funds totaling \$73,925 to date in this proceeding.

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1 Thus, himself and his attorneys have had ample knowledge about the
2 intervenor funding.

3 Personally, I have explained the Article 10 process to stakeholders at
4 Open Houses. Photographs from the January 2019 Open Houses are
5 provided as Exhibit__(GW-1) to provide an idea of how much information
6 is made available to Open House attendees. Appendix 2c, rev 1 from the
7 Application supplement provides example flyers that are handed out at
8 Open Houses.

9 CWE has maintained a regularly staffed local office in Canisteo since
10 January 2018 where project information is readily available for review and
11 discussion. Other Project document repositories included the following
12 locations:

- 13 • Cameron Town Hall
- 14 • Canisteo Town Hall
- 15 • Greenwood Town Hall
- 16 • Hornell Public Library
- 17 • Jasper Town Hall
- 18 • Jasper Free Library
- 19 • Troupsburg Town Hall

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- 1 • West Union Town Hall
- 2 • Wimodaughasian Free Library

3 **Q. Mr. Sharkey also asserts that the public was excluded from the**
4 **selection of representative viewpoints for photo-simulations. Is that an**
5 **accurate statement?**

6 A. No. CWE held three meetings on August 2, 2018 to solicit public input on
7 viewpoint selection for photo-simulations. These Visual Impact
8 Assessment (VIA) Community Meetings were well attended. CWE
9 opened each meeting with a brief introduction including an outline of the
10 Article 10 process and stakeholder participation. Project consultant EDR
11 explained the viewpoint selection process and shared example viewpoints.
12 Meeting participants then met with CWE and EDR staff to identify
13 additional candidate viewpoints on large-scale maps. Public input
14 influenced the VIA report provided in Appendix 24a of the Article 10
15 permit application. For example, Viewpoint 197 was added to simulate the
16 visual impacts of the Project near TripEnd Brewing which was requested
17 by a meeting participant.

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1 **Q. Mr. Sharkey expresses “grave concerns” about whether Amish**
2 **community members in the Project area have been properly**
3 **consulted. Do you share his concerns?**

4 A. No. CWE has spoken directly with many whom we believe are members
5 of the Amish community based on cultural attributes. In fact, eight
6 landowners who have leases for the project are identified as Amish in Mr.
7 Sharkey’s exhibit listing members of the Amish community (Ex_JS-20) or
8 elsewhere in his testimony. This fact alone disputes Mr. Sharkey and Mr.
9 Nolt’s claim that Amish community in the area is opposed to the Project.
10 CWE has maintained regular communication with all participating
11 landowners including Amish residents, sent project updates, and asked for
12 feedback on project component locations. We have received mailed
13 requests from one individual on Mr. Sharkey’s list who asked us to adjust
14 an electrical collection route through his property which was done.
15 Furthermore, CWE has notified adjacent landowners as further outlined in
16 the Public Involvement Plan about upcoming events and opportunities to
17 comment on the project. CWE’s efforts to engage landowners, including
18 Amish community members, directly through land agents and through
19 mailings have been respectful and effective. We have been present in the

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1 community for years and have spoken with many different landowners and
2 residents regarding the Project, including those who are Amish.

3 **Q. Mr. Sharkey, and his expert Mr. Nolt, are especially concerned about**
4 **those residents of the host community that speak a language other**
5 **than English as the primary language at home. Were you able to**
6 **provide project information and outreach to those individuals?**

7 A. Yes. Mr. Sharkey cites language barriers as a potential concern and
8 references CWE's Public Involvement Plan which determined 5.7% of
9 Study Area residents have a language other than English as their primary
10 language. Although many of the Amish speak a German dialect at home
11 and within their Amish community and would be considered to speak "a
12 language other than English as the primary language spoken at home", it is
13 my experience that most are also fluent in English. I believe, Mr.
14 Sharkey's expert on the Amish would concur as he wrote previously: "All
15 speak a German dialect as their first language, but they also learn to read,
16 write, and speak English as their second language" (Nolt 2016).

17 Mr. Sharkey criticizes CWE mailings as being ineffective yet the
18 mailing for the Public Statement Hearing in April 2019 contains the
19 mailing address for the Siting Board and the envelopes listed Invenergy's

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1 office as the return address. Mr. Sharkey references a public comment
2 from Mr. Enos Kauffman that was written on a mailing sent out by a
3 project opponent. In that respect, it seems that mailings can be an effective
4 method of communicating with the Amish community. I am confident that
5 the steps taken under the Public Involvement Plan provided a meaningful
6 public outreach to the Amish community as well.

7 **GRASSLAND BIRDS**

8 **Q. Do you have any observations with respect to the land use of the fields**
9 **that contain the nine turbines discussed on pg 15 of DEC's Grassland**
10 **Bird Testimony (16-F-0205 NYSDEC Grassland Bird Panel)?**

11 A. Yes, DEC seems to make an assumption that the agricultural fields in
12 question will be maintained as grassland bird habitat if the turbines were
13 not located in those fields. This assumption is unproven and speculative.
14 Of the fields identified the Grassland Bird Panel as being in suitable
15 habitat, all are currently mowed every year and 6 of the fields are currently
16 managed in a regular rotation in which it will alternate between hay, corn
17 and wheat on a regular basis. As they are currently managed there is no
18 guarantee they will continue to provide suitable habitat as described by the
19 panel on pgs 6-8 in their testimony.

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1 **SOCIOECONOMIC EFFECTS**

2 **Q. Mr. Sharkey comments that the Project will have a negative impact**
3 **on land prices and tourism. Is that an accurate conclusion?**

4 A. No. The most reliable and objective study to date which was released by
5 Lawrence Berkeley National Lab in August 2013 found no evidence of
6 wind turbines affecting home prices within the vicinity of a wind project.
7 This study and a related fact sheet are provided as Exhibit__(GW-2) and
8 Exhibit__(GW-3). Regarding tourism, based on relatively recent studies
9 from Scotland (Exhibit__(GW-4) and Exhibit__(GW-5) which has a
10 thriving wind energy development industry CWE does not believe the
11 Project will have an impact on tourism in and around the Project Area.

12 **Q. Have you reviewed Dr. Nolt's testimony?**

13 A. Yes

14 **Q. Dr. Nolt testifies on behalf of Mr. John Sharkey, an individual party**
15 **with the purpose of educating the Siting Board about the Amish**
16 **community in the Project area. Does Dr. Nolt properly represent the**
17 **scope of CWE's communication with the Amish?**

18 A. No. Dr. Nolt decries our in-person communications as cold-calls that are
19 unlikely to establish trust within the Amish community. In reality, our

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1 land agents communicate regularly with landowners before and after they
2 sign agreements. This is necessary to familiarize landowners with the
3 agreement details, answer questions about the project, and build a strong
4 working relationship with any participants. Based on the list of Amish
5 landowners provided by Mr. John Sharkey (Exhibit JS-20) and
6 information included elsewhere in his testimony, eight CWE-participating
7 landowners are members of the Amish community. Contrary to Dr. Nolt's
8 conclusion that no meaningful communication took place between CWE
9 staff and the Amish community, the participation of Amish community
10 members as part of the Canisteo Wind project is validation that trust exists
11 between CWE and members of the Amish community. CWE initially
12 reached out to members of the Amish community just as we did to other
13 landowners in the Project Area; however, once we established contact we
14 subsequently communicated with them in person and on their own terms.

15 Dr. Nolt goes on to postulate that the letter provided by Bishop
16 Enos A. Kauffman (Exhibit SN-05) implies community consensus against
17 the project. CWE has not received any other communications from
18 landowners presented as Amish by Mr. Sharkey in Exhibit JS-20
19 indicating they or their community are against the project.

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1 **Q. Dr. Nolt indicates the “pulsating noise” will negatively impact the**
2 **Amish community and property values will be lowered. Do you**
3 **believe that concern is justified?**

4 A. No. I feel his testimony related to noise is highly speculative and not
5 backed by any real technical analysis. While I respect Dr. Nolt’s depth of
6 academic expertise related to the Amish and their cultural history, I do
7 not feel he has the requisite background, nor has he thoroughly
8 researched either topic enough to determine the Project will adversely
9 impact the Amish community. Nor is he considering the benefits
10 provided to participating landowners.

11 Dr. Nolt notes on pg 17 that “each home within the Amish
12 settlement functions as a church building” but fails to identify how the
13 modeled noise levels would have an adverse impact on any of the
14 associated activities. CWE has proposed the most stringent design goals
15 and regulatory standards on non-participating homes (Category 1
16 receptors as described in Exhibit 19 - 19.g), precisely those locations
17 raised as a concern by Nolt.

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1 **Q. Do you agree with Dr. Nolt that “the Amish settlement of Jasper-**
2 **Woodhull seems to have decided, collectively, to not take turbine**
3 **leases”?**

4 A. No, based on my testimony above regarding participating landowners in
5 the Amish community, it is clearly not the case. Though some in the
6 community may not wish to sign a lease, there is no evidence offered that
7 property with turbines “are effectively off-limits for future Amish
8 acquisition, no matter the price...” as Dr. Nolt claims.

9 **CONSUMER SERVICES PANEL**

10 **Q. Have you read the testimony from the Consumer Services Panel?**

11 A. Yes

12 **Q. Do you feel that the Panel accurately characterized the Public**
13 **Involvement Plan (PIP) implementation and public outreach**
14 **activities?**

15 A. Overall, yes. The Consumer Services Panel noted that CWE did
16 inadvertently have issues with a few of the communications as outlined in
17 the PIP, though the Panel indicates they were remedied once we were
18 made aware of the issues. CWE has been actively engaging the Project
19 Towns and stakeholders since 2016. Since that time we have:

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- 1 • mailed out over 18,000 notices,
- 2 • held Open Houses on seven separate occasions totaling nine
- 3 opportunities to gather with stakeholders,
- 4 • regularly attended town board meetings in the six Project towns,
- 5 • and published over sixteen notices in area newspapers

6 See Exhibit__(GW-6) for a summary of our public engagement activities
7 through March 2019, and the PIP tracking report Exhibit__(GW-7) for
8 town board meetings attended by CWE representatives.

9 **Q. The Panel approximates 65 commenters have submitted public**
10 **comments to the Siting Board, and states that 48 commenters voice**
11 **opposition. Do you agree with that count?**

12 A. CWE closely monitors the DMM system and Canisteo Wind case
13 file for Public Comments. We view that feedback as a critical component
14 of the public involvement process and one that gives a strong voice to
15 project opponents. By my count there are 35 commenters opposed to the
16 Project on the DMM site out of 43 total commenters who in combination
17 provided 138 comments. My number allows that some commenters show
18 up with slightly different names, but they are the same person (e.g.,
19 Timothy Brown and Timothy F. Brown) and should not be counted twice.

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1 Additionally, there are comments from people within a household that
2 show up separately (e.g., Sharon Brewer and James Koegel reside at the
3 same residence). This is not to discount their voice as individuals;
4 however, I do want to highlight the diversity of commenters is somewhat
5 less than may be perceived without additional information. Finally, while
6 supporters of the project may not post as frequently on the DMM site there
7 are many as evidenced by turnout at landowner dinners and visits to our
8 local office in Canisteo.

9 **Q. Does that complete your testimony?**

10 **A. Yes.**

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References

- 1
- 2
- 3 Nolt, Steven M. 2016. The Amish: a concise introduction. Johns Hopkins
- 4 University Press

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2 A.L.J. LEARY: I think they're in the
3 record, it's fine.

4 MS. SENLET: Okay.

5 A.L.J. LEARY: His testimony you
6 weren't -- if you weren't just going to refer to them
7 as Exhibit 1 or Exhibit 7 I think there's some in the
8 Exhibit 7. So go ahead and do that.

9 MS. SENLET: Exhibit 2 will have some
10 parts in the original application and then there's an
11 update which will be the part of Hearing Exhibit 7.
12 Exhibit 3, the location of facilities. Again, some
13 parts of that will be under Hearing Exhibit 7 with
14 the updates. Exhibit 4, land use. Exhibit 6 wind
15 for -- wind power facilities. Again, there will be
16 updates that are included in exhibit -- Hearing
17 Exhibit 7.

18 A.L.J. LEARY: 31.

19 MS. SENLET: Hold on one sec, Your
20 Honor. After Exhibit 6 we have Exhibit 13.

21 A.L.J. LEARY: 13?

22 MS. SENLET: 13, real property.

23 A.L.J. LEARY: Uh-huh.

24 MS. SENLET: That will be part of
25 Hearing Exhibit 7. Exhibit 18, safety and security.

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2 Again, parts of Exhibit Hearing 7. Application
3 Exhibit 25 effect on transportation, that will be
4 Hearing Exhibit 1, and the last one is Exhibit 31
5 local laws and ordinances and that will be parts of
6 Hearing Exhibit 7.

7 A.L.J. LEARY: Okay. Is this witness
8 available for cross?

9 MS. SENLET: If you want me to go
10 through the rebuttal table quickly now --

11 A.L.J. LEARY: Sure.

12 MS. SENLET: -- we can do that. Okay.

13 BY MS. SENLET: (Cont'g.)

14 Q. Mr. Woodcock, could you please
15 open Page 3 of your rebuttal testimony?

16 A. Okay.

17 Q. Do you see a table in the middle
18 of the document there, in the middle of the page?

19 A. Yes. Yes, I do.

20 Q. And Mr. Woodcock on page 3,
21 starting line 6, you do state that C.W.E. -- starting
22 on line 6, C.W.E. will reach out to Mr. Saviola to
23 schedule site visits with C.W.E. representatives and
24 landowners to discuss the potential changes in more
25 detail. Is that correct?

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2 A. Yes.

3 Q. Have you met with Mr. Saviola
4 after you filed your rebuttal testimony?

5 A. Yeah, we met on August 14th, last
6 Wednesday.

7 Q. And have you discussed these
8 access road issues that are discussed on your
9 testimony page 3?

10 A. We did for each location, look at
11 it and met with landowners in some spots.

12 Q. Those are the locations that are
13 listed on your table towards left as 7, 27, 32, 67,
14 68 and 128?

15 A. Yes.

16 Q. Okay. And you do have Invenergy's
17 response to the right hand side. After your meeting
18 with Mr. Saviola happened last week, could -- would
19 you be able to update your response?

20 A. Yes, I don't have that table in
21 front of me to review the discussions that we had,
22 but we can paraphrase.

23 Q. Sure.

24 MS. VIGARS: Objection.

25 A.L.J. LEARY: Again, go ahead, Ms.

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2 Vigars.

3 MS. VIGARS: D.P.S. is concerned, we
4 are not an active party to this meeting. D.P.S. is
5 concerned that it was potentially disclosing
6 settlement conversations between the applicant and
7 the Department of Agriculture and Markets. Again,
8 I'm unsure as to the extent -- to the extent the
9 witness can speak to the applicant's revised position
10 on some of these issues that may be the preferable
11 direction to stay within. But again, I'm just
12 raising a concern.

13 A.L.J. LEARY: I'm --

14 MS. SENLET: I --

15 A.L.J. LEARY: Hold on a second. This
16 is why I directed and -- and made the boundaries of
17 this witness's testimony not about the discussions
18 with Ag & Markets. So if this testimony changes Mr.
19 Woodcock's existing testimony in the record, you can
20 do that right now.

21 MS. SENLET: Uh-huh.

22 A.L.J. LEARY: I agree with Ms.
23 Vigars, however, and sustain the objection that this
24 is not about settlement, you're not going to get a
25 chance to change this back somehow, if things fall

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2 apart with Ag & Markets, if this is in fact the deal.
3 I don't want to know whether it's the deal. I don't
4 want anybody in the room to know it's the deal. The
5 only question in my view is, is Mr. Woodcock changing
6 his testimony as it's contained in that table.
7 You're free to ask him what changes he makes to that
8 table right now and you're free to file a red line
9 copy of that. Okay. So that's it.

10 No, I met with Mr. Saviola or we
11 discussed X, Y & Z none of that, it can come from
12 this witness. So I'm cautioning the witness in that
13 way because I just heard you drift into after we met
14 with Mr. Saviola and it was open -- you opened the
15 door, Ms. Senlet, by rightly so trying to set that
16 foundation. So let's just stay with, are there
17 changes to his testimony on that table. What are
18 they, tell us what they are.

19 MS. SENLET: Correct. And my
20 questioning after this point will be what is your
21 updated Invenergy response to that table.

22 A.L.J. LEARY: Yeah, I did hear that.

23 MS. SENLET: And we will just deal
24 with that.

25 A.L.J. LEARY: I did hear that. I

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2 think the offense was getting there and not quite
3 there so I'm -- thank you, Ms. Vigars, for raising
4 it. And I was starting to get a little nervous, but
5 let's just hear what the change testimony is cold.

6 MS. VIGARS: From the applicant's
7 perspective.

8 A.L.J. LEARY: From the applicant's
9 perspective.

10 MS. SENLET: You ready, Mr. Woodcock?

11 THE WITNESS: Yes.

12 A.L.J. LEARY: Okay.

13 BY MS. SENLET: (Cont'g.)

14 Q. Mr. Woodcock, what will be your
15 updated response to access road to turbine number 7?

16 A. For turbine number 7, the changes
17 C.W.E. is updating the site plan and moving the road
18 south out of the field.

19 Q. What will be your updated
20 response to road to turbine 27?

21 A. C.W.E. is updating the site plan
22 and indicating that finished road there will match --

23 MS. VIGARS: Objection.

24 A.L.J. LEARY: Yes.

25 MS. VIGARS: Your Honor, D.P.S. and

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2 D.E.C. have concerns, I think I'll let Ms. Paulsen.

3 MS. PAULSEN: It sounds from the
4 beginning of his testimony that there's changes in
5 project components and no party including D.E.C.
6 staff has had the opportunity to review those changes
7 and assess whether or not from D.E.C.'s perspective
8 any resources would be impacted.

9 A.L.J. LEARY: I think that's right.
10 Hold on one second. So proceeding in this way, would
11 it be acceptable to D.P.S. staff to all parties and
12 D.E.C. once the update to this table is filed as a
13 standalone document which --

14 MS. SENLET: Uh-huh.

15 A.L.J. LEARY: -- it should be in an
16 affidavit filed by Mr. Woodcock, the parties have the
17 opportunity to take a look at the new locations and
18 file testimony, post-hearing testimony objecting to
19 these, you know, new locations that Ag & Markets has
20 are -- I'm sorry, that Canisteo Wind is now
21 proposing.

22 MS. SENLET: Of course, Your Honor.
23 Just to clarify, the requested change, the locations
24 are not changing, the requested changes the first
25 column in that table. So there is nothing new, there

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2 is a requested change.

3 A.L.J. LEARY: Now when you move
4 something that's new, that's big new, and it can be
5 moved into a wetland, for example, or I mean, I -- I
6 don't know, these are -- these are access roads, all
7 of them, but access roads have an impact on streams,
8 wetlands and so forth. I understand that may be
9 where Ms. Paulsen is coming from and Ms. Vigars. So
10 moving them they're just seeking the opportunity to
11 see where you're moving them and to -- to have an
12 opportunity to be heard about that.

13 MS. SENLET: We have no objections to
14 that, Your Honor.

15 A.L.J. LEARY: And so I also would ask
16 both Ms. Paulsen and Ms. Vigars to explore with this
17 witness what those questions could be and whether
18 those questions can be answered that still does not
19 foreclose your opportunity after the hearing to be
20 heard on and see in black and white, what these say,
21 what this table actually says and then to again
22 submit. And -- and if you want to recall Mr.
23 Woodcock, you can try to do that if it gets to that,
24 but it's -- it's just a little unusual. And yet I
25 think it may advance something here and that's why,

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2 you know, I think it should be allowed. So as long
3 as you're protected, is that an acceptable way, Ms.
4 Vigars and Ms. Paulsen, to proceed?

5 MS. VIGARS: Yes.

6 MS. PAULSEN: It is acceptable except
7 what is the time frame of all the discussions.

8 A.L.J. LEARY: I think --

9 MS. SENLET: We're hoping that --

10 A.L.J. LEARY: -- as Ms. Senlet
11 indicated you can file the table and updated form
12 with Mr. Woodcock having signed an affidavit
13 attesting to it by --

14 MS. SENLET: Before the end of the
15 week, Your Honor.

16 A.L.J. LEARY: -- by Friday?

17 MS. SENLET: Right.

18 A.L.J. LEARY: Close of business would
19 be good. And then you will have the opportunity,
20 does next Wednesday, does --

21 MS. VIGARS: Your Honor --

22 A.L.J. LEARY: -- oh, you -- we have
23 problems with the end of the summer. I'm hearing it,
24 I'm hearing it before I'm even hearing it. So what
25 do -- what do you --

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2 MS. VIGARS: I do not have -- I don't
3 my whole staffs' availability into next week to
4 commit to a deadline of Wednesday. This is -- this
5 affects multiple -- potentially multiple staff
6 panels.

7 A.L.J. LEARY: Okay. Then what I'm
8 going to do is wait to hear from you both and any
9 other party that wants to have -- to be heard on this
10 about the timing, about a) whether you need to
11 respond and b) the timing of that response. What's
12 our dates for post-hearing briefs?

13 MS. DAX: September 27th is the
14 initial brief.

15 A.L.J. LEARY: 27. I think we have a
16 little bit of a cushion to resolve that before
17 September 27th, I would hope.

18 MR. DAX: If I may, Your Honor? Just
19 I want to remind -- remind you and other parties that
20 a number 3 a very similar thing happened.

21 A.L.J. LEARY: Yeah.

22 MR. DAX: And was resolved post-
23 hearing in initial briefs and --

24 A.L.J. LEARY: Let's hope that
25 happens.

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2 MS. VIGARS: Can I ask one clarifying
3 question? What's the applicant's intended form of
4 the filing, would his information be in written
5 testimony or revisions to this chart, will maps be
6 made available?

7 MS. PAULSEN: And shapefiles,
8 shapefiles are important.

9 A.L.J. LEARY: Well, I believe Mr.
10 Woodcock's testimony is that they intend to update
11 the site plan. So what are we talking about timing
12 on updating that because certainly that's a -- has to
13 be done in kind of an immediate way.

14 MR. DAX: We can -- I will confer with
15 the people that prepare the Exhibit 11 -- Application
16 Exhibit 11 site plans and determine whether we can
17 focus in on this.

18 A.L.J. LEARY: Mr. Miller needs to
19 talk to you. He's getting up, he is coming here.

20 MR. DAX: Yeah, I will need to talk to
21 the people that prepare site plans and understand
22 whether a subdivision of the site plans can be
23 prepared on this, whether -- or whether there's
24 another way to resolve it, in which case we will talk
25 to, we will confer with counsel for D.E.C. and D.P.S.

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2 A.L.J. LEARY: There is an existing
3 site plan in the record now --

4 MR. DAX: Right.

5 A.L.J. LEARY: -- that can easily be
6 used to convey this information, I believe. But in
7 an informal way, I'm looking for the revised site
8 plan that would be your application that you -- that
9 Canisteo Wind wants the Siting Board to consider. So
10 there's two interests to be served. Interest 1 is
11 what Ms. Paulsen and Ms. Vigars need. Interest 2 is
12 what the Siting Board needs as the final
13 representation of this project in -- in the site plan
14 layout.

15 So I think you could serve the D.E.C.
16 D.P.S. interest in an informal way maybe, but you're
17 not going to serve the Siting Board in that informal
18 way, at some point that needs to be filed. So just
19 keep that in mind if -- if that's Mr. Woodcock's
20 testimony as a result of whatever happened here.
21 Those two needs need to be addressed.

22 MR. DAX: Right, we -- we will --

23 A.L.J. LEARY: Obviously D.E.C.s and
24 D.P.S.s more immediately.

25 MR. DAX: First yeah, we will -- we

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2 will address those concerns right away.

3 A.L.J. LEARY: Okay.

4 MR. DAX: And then if it turns out
5 that these are acceptable changes to the parties,
6 then we will file revised site plans for those
7 sections for the Siting Boards' review.

8 A.L.J. LEARY: Perfect.

9 MS. O'TOOLE: Your Honor, may I be
10 heard on this?

11 A.L.J. LEARY: Before I lose my
12 thought, would Ms. Vigars and Ms. Paulsen, can you
13 use the existing site plan and notations by Mr.
14 Woodcock, Ms. Senlet, Mr. Dax, Mr. Miller, whoever
15 knows what the -- the close to approximation is, can
16 you use that as a representation because I -- I have
17 a feeling this revision -- actual revision of the
18 site plan will take a little bit longer and I want to
19 address your concerns hopefully by tomorrow, if you
20 can pull out a site plan map and so they can take it
21 back at whenever your people can look at it.

22 MS. PAULSEN: Your Honor, from D.E.C.
23 staff's perspective they need updated shapefiles to
24 do the review.

25 A.L.J. LEARY: I see.

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2 MS. PAULSEN: Yes. And that is what's
3 integral to -- to their review.

4 A.L.J. LEARY: And -- and is that for
5 the overlay on the wetland delineation streams and --

6 MS. PAULSEN: It would be various
7 resources including wetland streams and occupied
8 habitat.

9 A.L.J. LEARY: What about it Mr. Dax?

10 MR. DAX: I suspect that Ms. Paulsen
11 is assuming a much bigger set of changes than are
12 really at play here. I suspect that -- that upon a
13 quick review of the existing site plan and a
14 conference with Mr. Woodcock, they would understand
15 that it's no big deal. I could be wrong.

16 A.L.J. LEARY: Well, it's all on the
17 eye of the beholder, isn't it?

18 MR. DAX: Well, yeah, but --

19 A.L.J. LEARY: So there's two
20 beholders here. There's you and there's Ms. Paulsen.

21 MR. DAX: Well, but either there's a
22 wetland that's impacted or there is not, I mean,
23 that's not --

24 A.L.J. LEARY: I -- I think that's
25 right, but that's not the only resource that --

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2 MR. DAX: Streams.

3 A.L.J. LEARY: I think -- well,
4 there's -- there's -- there's some things going on
5 here that I am not going to speak for D.E.C., but I
6 agree with Ms. Paulsen about and I'm not suggesting
7 you're wrong either. That could be the result. But
8 it is in the eye of the beholder. Let's -- let's
9 have you meet with Ms. Paulsen. Is tomorrow still
10 happening? Just from the preliminary this could be a
11 perfect thing you can preliminarily talk about
12 tomorrow, along with the agenda and then meet next
13 week about and get a little more specific. If you
14 can't -- can't live with this, you can't live with it
15 and you can say that. You'll have an opportunity to
16 say that.

17 MS. PAULSEN: And D.E.C.'s amendable
18 to -- to speaking about the exchange of information
19 for a review of the purpose.

20 A.L.J. LEARY: Right. And I -- I just
21 asked Mr. Dax that you go into it assuming that it
22 could be a big deal.

23 MR. DAX: I always do.

24 A.L.J. LEARY: Okay. Okay. Where
25 were we --

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2 MS. O'TOOLE: Your Honor --

3 A.L.J. LEARY: -- Ms. O'Toole.

4 MS. O'TOOLE: Your Honor, I just like
5 to note for the record my strong objection to this
6 conduct by the applicant changing the goalposts on
7 what is said to be the last day of this hearing after
8 the majority of the witnesses have come and gone. We
9 don't know what the change is going to be. We don't
10 know how that will impact anything and the
11 applicant's assertion that it's a small change and
12 possibly no big deal is meaningless. I'd like to
13 request that this hearing be adjourned and carried
14 over until such time that that information and a
15 final site plan has been circulated to the parties.

16 A.L.J. LEARY: Okay. We're going to
17 reserve on that motion. And I'm going to give you an
18 opportunity and highly recommend that you cross-
19 examine this witness to see the kind of information
20 that makes it a big deal or not a big deal. Because
21 I don't know as I sit here and neither do you,
22 whether this is a significant change to the project
23 layout. So let's -- let's have some testimony from
24 the witness. We're going to reserve, you can renew.
25 We're still going to reserve after you renew. But at

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2 some point, we'll have conferred and let you know
3 what our ruling is on that.

4 MS. O'TOOLE: And respectfully, Your
5 Honor, I would like to add to that motion that in the
6 event that there are changes and that we need to
7 consult our experts with regard to those changes that
8 the applicant be required to make an additional
9 payment and that additional intervenor funds be made
10 available.

11 A.L.J. LEARY: That really involves
12 you seeking to have the Siting Board determine that
13 the changes to the application that occurred post-
14 compliance constitute a revision --

15 MS. O'TOOLE: Uh-huh.

16 A.L.J. LEARY: -- and meet that
17 criteria to warrant submission of additional
18 intervenor funding. So I need to have that in
19 writing. The applicant and other parties have to
20 have an opportunity to be heard on that. You are
21 free to do that, but let's hear the witness for now
22 and --

23 MS. O'TOOLE: Thank you, Your Honor.

24 MR. WISNIEWSKI: And Your Honor, to be
25 clear that motion may not be brought depending on

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2 what the revision is. We understand that not all
3 revisions are a big R revision.

4 MS. O'TOOLE: Yes.

5 MR. WISNIEWSKI: But we need to hear
6 more from the witness.

7 MS. O'TOOLE: We're reserving are
8 right.

9 A.L.J. LEARY: Not all amendments to
10 the application constitute a revision within the
11 meaning of 16 NYCRR 1000.2AK. That is correct. So I
12 understand. Let's -- anybody else want to be heard
13 on this before we continue with Mr. Woodcock's
14 testimony?

15 Okay, let's go. Everybody can explore
16 this area. Please do not explore the discussions
17 that occurred between Mr. Saviola from Ag & Markets
18 and Mr. Woodcock. And I again caution Mr. Woodcock,
19 do not discuss anything about those -- that meeting
20 with Mr. Saviola or the discussions. Thanks.

21 BY MR. SENLET: (Cont'g.)

22 Q. Mr. Woodcock, if we can go back
23 to your testimony on page 3.

24 A. Uh-huh.

25 Q. I believe the last response you

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2 gave was regarding access road number 27, is that
3 correct?

4 A. That's correct.

5 Q. And what will be your updated
6 response for number 32?

7 A. No change to the testimony.

8 Q. What will be your updated
9 response to roads number 67 and 68?

10 A. Without causing anymore
11 consternation and it would be that we plan to make an
12 adjustment to the access road as described.

13 Q. What will be your updated
14 response to number 128?

15 A. No change to --

16 Q. No change to your earlier
17 response?

18 A. No.

19 Q. Is that it, Mr. Woodcock?

20 A. Yes, that's it.

21 MS. SENLET: That will be the end of
22 this line of questioning, Your Honor. Mr. Woodcock
23 is ready for cross-examination.

24 A.L.J. LEARY: Yeah. Can you go back,
25 Ms. Senlet, and --

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2 MS. SENLET: Sure.

3 A.L.J. LEARY: -- because we were
4 interrupted by some important concerns raised by the
5 parties on access road 27. He indicated that the --
6 our site plan would be updated to provide for what?

7 THE WITNESS: To show the road would
8 be at finished grade.

9 A.L.J. LEARY: I'm sorry?

10 THE WITNESS: To show that the road
11 surface would be essentially level with finished
12 grade. And allow for farm vehicles to cross over the
13 road.

14 A.L.J. SHERMAN: So that roads not
15 moving. It's just the grade that was finished.

16 THE WITNESS: Just clarifying that,
17 yeah, the --

18 A.L.J. SHERMAN: Okay.

19 THE WITNESS: -- the finished grade
20 would be at farm level.

21 A.L.J. LEARY: And no change to access
22 road 32. What's the change to access roads 67 and
23 68?

24 THE WITNESS: Plan to make the
25 requested change.

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2 MS. SENLET: Our requested change is
3 listed on -- already in the testimony, Your Honor.

4 A.L.J. LEARY: Okay. I want to note
5 and limit. I believe D.E.C. and D.P.S. have had an
6 adequate opportunity to address access road 27 to
7 clarify the grade of the road, and it's not moving.
8 So I'm going to just limit testimony or whatever
9 you're going to do later if you're going to do
10 anything to not be including access road 27. There
11 are no changes to 32 or 128. You've already had an
12 opportunity based upon Mr. Woodcock's testimony to
13 submit testimony about those. So anything after the
14 hearing about AR32 and AR128 is off limits as well.
15 I do think you have to have an opportunity to respond
16 to AR7 which is moving. The access roads moving
17 south, and I'll give you an opportunity to be heard
18 on access roads 67 and 68 which is -- which is a
19 change.

20 MS. VIGARS: Your Honor, for my own
21 benefit, can we have the witness clarify the changes
22 to access road number 7?

23 A.L.J. LEARY: Yes, let's do that on
24 cross. And so Ms. Senlet, have you completed your
25 tes -- testimony, your corrections --

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2 MS. SENLET: Yes, Your Honor.

3 A.L.J. LEARY: -- to the table?

4 MS. SENLET: He can clarify in cross.

5 A.L.J. LEARY: Okay. Who -- you want
6 to go first?

7 MS. VIGARS: Right.

8 A.L.J. LEARY: Ms. Vigars?

9 CROSS EXAMINATION

10 BY MS. VIGARS:

11 Q. Mr. Woodcock, can you please
12 restate the changes to access road 7?

13 A. We plan to make the requested
14 change from them.

15 Q. I'm sorry. What was the
16 requested change?

17 A. The requested change is in the
18 second column of the table. And it says the access
19 road leading to T7 should be moved approximately 400
20 feet south and follow the edge of the field. So --

21 Q. Thank you.

22 A. So emphasis on approximately.

23 Q. So to clarify, your testimony is
24 being updated to note that access road 7 and access
25 roads 67 and 68. The applicant will make the

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2 requested changes identified in the column labeled
3 requested change in your testimony, is that correct?

4 A. Yes, our plan is to modify the
5 routes, the access road routes as described.

6 Q. Okay. With regard to access road
7 number 7, your initial response states that there's
8 possible permanent impact to wetland 6D. How will
9 the requested change impact that identified wetland
10 6D?

11 A. I don't know. We --

12 Q. I'm sorry?

13 A. I do not know how it will impact
14 that specific wetland we would -- we would need to
15 look at it with, you know, our wetland consultants
16 and see if there is any impact to that wetland by
17 that change.

18 MS. VIGARS: Your Honor, could we take
19 a moment to confer with Mr. Davis and D.E.C.?

20 A.L.J. LEARY: Yes.

21 MS. VIGARS: Thank you.

22 (Off the record, 11:41 to 11:57)

23 MS. VIGARS: At this time, the
24 possible continued cross-examination of this witness.
25 We would -- It would be our preference for -- to see

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2 the applicants filing that they intend to provide to
3 all the parties that embodies these changes. And I
4 also believe it would be helpful if we had a visual
5 aid to accompany. The changes to the testimony and
6 the modifications to the project. I believe the
7 applicant's willing to do that. We could -- D.P.S.
8 would even be happy to -- in the -- given the time,
9 shortness on time, even an approximate revise map.
10 We would -- that would be helpful for our evaluation.

11 A.L.J. LEARY: But it's not going to
12 sail to your technical staff, you need to shapefiles.
13 Or is it -- what -- you want to make that
14 determination tomorrow when you look at --

15 MS. VIGARS: If we --

16 A.L.J. LEARY: -- a visual on this.

17 MS. VIGARS: It would be helpful to
18 have the visual quickly and then shapefiles may be
19 needed to follow up. I think D.E.C. requested
20 shapefiles based on their programs.

21 A.L.J. LEARY: Okay.

22 MS. VIGARS: I'll let D -- D.E.C.
23 speak to that.

24 A.L.J. LEARY: Okay. So you don't
25 have any further questions for this witness today?

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2 MS. VIGARS: No, not at this time.

3 A.L.J. LEARY: Okay.

4 MS. PAULSEN: Your Honor, D.E.C. is
5 also reserving cross. And Ms. Vigars is correct that
6 -- again D.E.C. staff is requesting shapefiles for
7 the proper changes.

8 A.L.J. LEARY: Okay.

9 A.L.J. SHERMAN: Could I -- can I have
10 1 clarification from both counsel? Reserving cross
11 as to this, not as to the entire refiling.

12 MS. PAULSEN: Correct.

13 MS. VIGARS: Correct.

14 A.L.J. SHERMAN: Thank you.

15 MS. PAULSEN: Reserving cross-
16 examination based on the -- the project changes.

17 A.L.J. LEARY: Thank you. And as I
18 stated before, it looks to me like there's only
19 really 2 areas to this table that you would need to
20 focus on. So it's not an open door to review
21 everything. Unless good cause is shown for some
22 reason. Who -- do you -- did you not have any
23 further questions for this witness or any questions
24 for this witness?

25 MS. PAULSEN: I do not have any

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2 questions, Your Honor.

3 A.L.J. LEARY: Okay. Mr. Wisniewski
4 and Ms. O'Toole?

5 MS. O'TOOLE: Yes, Your Honor.

6 A.L.J. LEARY: Hold on.

7 MS. O'TOOLE: Just passing out
8 exhibits.

9 A.L.J. LEARY: Oh, good. Don't speak.
10 221.

11 MS. O'TOOLE: May I begin?

12 A.L.J. LEARY: Yes.

13 BY MS. O'TOOLE:

14 Q. Mr. Woodcock, could you please
15 describe your role at Canisteo Wind?

16 A. Sure. I'm the lead developer for
17 Canisteo, responsible for local involvement, working
18 with the land agents, providing support on the permit
19 application.

20 Q. Now, Mr. Woodcock, you
21 acknowledged that there is an Amish population in the
22 project area, is that correct?

23 A. There are residents that have
24 been identified as Amish within these hearings, or
25 within these proceedings.

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2 Q. Have you ever completed any
3 cultural training for interfacing with the Amish
4 community?

5 A. Have I personally?

6 Q. Yes.

7 A. No.

8 Q. Now, in front of you is what's
9 been admitted as Hearing Exhibit 166. It's item
10 number 172 on Your Honor's list. It was admitted
11 yesterday. It's a 2-page document entitled Canisteo
12 Wind Energy, LLC response to Sharkey 3,
13 interrogatory/document request, dated June 3rd, 2019.
14 Did you prepare this document?

15 A. Did you say that's 166?

16 Q. 166.

17 A. Yes.

18 Q. Okay. Also in front of you is
19 what's been marked as Hearing Exhibit 167 which is
20 item number 173 on Your Honor's list, which is a 3-
21 page document entitled Canisteo Wind Energy, LLC
22 response to Sharkey 5 interrogatory/document request,
23 dated June 17th, 2019. Do you see that document?

24 A.L.J. LEARY: You just lost me. Bear
25 with me. I have -- I -- I am with you on C.W.E.

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2 response to Sharkey 03.

3 MS. O'TOOLE: Yup.

4 A.L.J. LEARY: You just referenced
5 Hearing Exhibit 173?

6 MS. O'TOOLE: It was item 173, Hearing
7 Exhibit 167.

8 A.L.J. LEARY: Got it. And that is
9 Sharkey 05?

10 MS. O'TOOLE: 172 is Sharkey 3. No?
11 Am I off by one?

12 A.L.J. LEARY: You are. Hearing --

13 MS. O'TOOLE: Okay. I apologize.
14 This chart is very small.

15 A.L.J. LEARY: So Hearing Exhibit 166.

16 MS. O'TOOLE: Is Sharkey 3.

17 A.L.J. LEARY: I have Sharkey 1 in my
18 hands.

19 MS. O'TOOLE: Okay.

20 THE WITNESS: I have extra copies of 2
21 and 3 over here. I think 03 and -- Sharkey 03 and
22 Sharkey 05.

23 MS. O'TOOLE: Yeah, Hearing Number
24 Exhibit 166, Sharkey 3.

25 A.L.J. LEARY: No, no. This isn't --

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2 here is the exhibit.

3 MS. O'TOOLE: All right. So my
4 apology to more accurately reflect the item number,
5 Hearing Exhibit 166 which is -- was attached as
6 Exhibit SN02 to Dr. Nolt's testimony, C.W.E. response
7 to Sharkey 03 is item number 171. I apologize, this
8 chart is very small.

9 A.L.J. LEARY: And it's Exhibit 16 --
10 Hearing Exhibit 166.

11 MS. O'TOOLE: Yes, admitted yesterday.

12 A.L.J. LEARY: So what I was handed
13 was Sharkey 01. Is that not -- is that coming?

14 MS. O'TOOLE: That's coming. I -- I
15 just --

16 A.L.J. LEARY: Okay. Good.

17 MS. O'TOOLE: -- given the
18 configuration of this room and to expedite this
19 hearing. I gave all exhibits that were not already
20 admitted to Your Honor, or not previously been
21 distributed.

22 A.L.J. LEARY: Okay.

23 MS. O'TOOLE: Okay. So to further
24 clarify, Hearing Exhibit 167 which was attached to
25 Dr. Nolt's testimony as Exhibit SN-03 C.W.E. response

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2 to Sharkey-05 is item number -- on Mr. Dax's chart,
3 172. Is everyone following me? May I continue?

4 A.L.J. LEARY: Sure.

5 BY MS. O'TOOLE: (Cont'g.)

6 Q. Okay. Referring back to Hearing
7 Exhibit 167, do you have that document in front of
8 you, Mr. Woodcock?

9 A. To confirm, that's C.W.E.
10 response to Sharkey 05?

11 Q. Yes.

12 A. Yes.

13 Q. Did you prepare this document?

14 A. Yes.

15 Q. And does this document appear to
16 be a true and accurate copy of the document you
17 prepared?

18 A. I believe so, yeah.

19 Q. Okay. Also in front of you is
20 what was marked for identification yesterday as
21 Hearing Exhibit 200, a 3-page document entitled
22 Canisteo Wind Energy, LLC response to Sharkey-10
23 interrogatory/document request, dated August 16th,
24 2019. Do you have that document in front of you?

25 A. Yes.

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2 A.L.J. LEARY: I need --

3 THE WITNESS: That's Sharkey 10?

4 A.L.J. LEARY: I need this.

5 MS. O'TOOLE: You got it yesterday,

6 Your Honor.

7 MR. WISNIEWSKI: I -- I also --

8 A.L.J. LEARY: I -- I'm sorry. It's
9 here.

10 MS. O'TOOLE: Yes.

11 A.L.J. LEARY: Good. Go ahead.

12 MS. O'TOOLE: And It also was emailed
13 around for everyone's convenience. But I handed out
14 my copies yesterday when Ms. Senlet questioned about
15 this exhibit.

16 A.L.J. LEARY: Okay.

17 THE WITNESS: So that's Sharkey 10?

18 BY MS. O'TOOLE: (Cont'g.)

19 Q. Yes.

20 A. Yeah.

21 Q. Did you prepare this document?

22 A. Yes, I did.

23 Q. And does that appear to be a true
24 and accurate copy of the document you prepared?

25 A. Yes, it does.

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2 MS. O'TOOLE: At this time, Your
3 Honor, we would ask that Hearing Exhibit 200 be moved
4 into evidence.

5 A.L.J. LEARY: Isn't this already
6 admitted?

7 MS. O'TOOLE: Yesterday it was not
8 offered for admission. It was only offered for
9 identification.

10 A.L.J. LEARY: I have next to it that
11 it was admitted and it's -- it is re-admitted at your
12 request.

13 MS. O'TOOLE: Thank you. We'll take a
14 double admission.

15 BY MS. O'TOOLE: (Cont'g.)

16 Q. Okay. Now, Mr. Woodcock, turning
17 your attention to Canisteo Wind's response to Sharkey
18 10. In that document you identified 8 landowners
19 whom you believed to be Amish -- Amish who have
20 leases with Canisteo Wind, is that correct?

21 A. Yeah, this is based on the
22 information that was presented listing Amish
23 landowners in the project area.

24 Q. Could you read their names,
25 please?

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2 A. Sure. Eli Farmwald is landowner
3 number 1. Landowner number 2 is Lester Farmwald.
4 Landowner number 3 is Levi Miller. Landowner number
5 4, David Herschberger. Landowner number 5, Jacob
6 Stutzman. Landowner number 6, Melvin Mullet.
7 Landowner number 7, Andy Byler and landowner number
8 8, Harvey Miller.

9 Q. Okay. Now, please turn your
10 attention to Canisteo Wind response to Sharkey 5,
11 Hearing Exhibit 167. Are you there?

12 A. Yes.

13 Q. Could you read question 1 for the
14 record, please?

15 A. Please identify the following for
16 (including the names, addresses, dates of
17 communication and mode of communication) landowners,
18 residents, potential stakeholders and/or other
19 community members that Canisteo Wind Energy, LLE --
20 LLC communicated with who self-identified or are
21 identified by others as Amish and/or Mennonite. And
22 then part A?

23 Q. No, that's fine. In response to
24 this question, did you provide a table with 6 names?

25 A. Yes, we did.

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2 Q. Does Eli Farmwald appear on this
3 table?

4 A. No, he does not.

5 Q. Does Lester Farmwald appear on
6 this table?

7 A. No, he does not.

8 Q. Does Harvey Miller appear on this
9 table?

10 A. No, he does not.

11 Q. Did Canisteo Wind enter into
12 leases with these 3 individuals without communicating
13 with them?

14 A. No, definitely not.

15 Q. Now, on the table Levi Miller is
16 identified as a participating landowner, is that
17 correct?

18 A. Yes.

19 Q. But David Herschberger, Jacob
20 Stutzman, Melvin Mullet and Andy Byler were not, is
21 that correct?

22 A. They're not indicated as
23 participating.

24 Q. When did Canisteo Wind enter into
25 leases with Misters Herschberger, Stutzman, Mullet

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2 and Byler?

3 A. I would have to look back at
4 their specific agreements to know the -- the dates
5 when we entered into agreements with them.

6 Q. Do you have an understanding of
7 the year you entered into leases with them? Or
8 Canisteo Wind entered into leases?

9 A. We've been in the project area
10 for a long time now. Some of these would be 2013,
11 2014 perhaps. Some of them would be more recent.

12 Q. Do you understand that the
13 information request in an Article 10 proceeding are
14 considered continuing?

15 A. I'm not sure what you mean by
16 that.

17 Q. Meaning that if additional
18 information comes to the applicant's attention that
19 it's required to update the response to information
20 request?

21 A. I was not aware of it, but --

22 Q. Okay. Turning back to those
23 property owners whom Canisteo Wind believes to be
24 Amish, do any of the 8 property owners identified in
25 Canisteo's response to Sharkey 10, Hearing Exhibit

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2 200 have leases for turbines on their property?

3 A. So 7 of the 8 landowners listed
4 here have wind leases with us. And 1 has -- what we
5 would call a setback agreement.

6 Q. Could you explain for the record
7 what that means?

8 A. A setback agreement?

9 Q. Yes.

10 A. A setback agreement is an
11 agreement that compensates the landowner for a
12 turbine that's within a certain distance of their
13 property line or residence.

14 Q. So is it fair to say that there
15 will not be turbines located on their properties?

16 A. On which one?

17 Q. The one with the setback
18 agreement that you are referring to.

19 A. Right. That does not allow for
20 project components. That's correct.

21 Q. Okay. And so will project
22 components be located on the other 7 properties?

23 A. At least 4 of the remaining 7,
24 yes.

25 Q. And what project components or

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2 what types of project components will be located on
3 those 4?

4 A. Collection routes, access roads.

5 Q. So to be clear, there will be no
6 turbines located on any of the properties identified
7 in --

8 A. Correct, they're --

9 Q. -- Hearing --

10 A. -- adjacent to, but not the time
11 a turbines are -- no -- no turbines are planned on
12 those parcels.

13 Q. For clarity of the record, please
14 let me finish my question before --

15 A. Oh, I apologize. Sure.

16 Q. -- before you answer.

17 A. Okay.

18 Q. I'll try not to interrupt you
19 either.

20 A. Fair enough.

21 Q. Okay.

22 A.L.J. LEARY: I need some clarity in
23 the record right there on that particular testimony.
24 So Sharkey 10 lists 8 people, correct?

25 THE WITNESS: Right, that's correct.

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2 A.L.J. LEARY: And of those 8, you
3 indicated 1 had a setback --

4 THE WITNESS: Yes.

5 A.L.J. LEARY: -- agreement with
6 Canisteo Wind. Which of the 8 has the setback
7 agreement?

8 THE WITNESS: That would be landowner
9 number 8, Harvey Miller.

10 A.L.J. LEARY: Okay. And you
11 indicated that 4 others have agreements in the nature
12 of access roads or other project components?

13 THE WITNESS: Yes, Your Honor.

14 A.L.J. LEARY: Which were those 4?

15 THE WITNESS: I -- going off of memory
16 here, but I believe Eli Farmwald, David Herschberger.
17 Landowner number 4, David Herschberger. Landowner
18 number 5, Jacob Stutzman and landowner number 7, Andy
19 Byler.

20 A.L.J. LEARY: Herschberger, Stutzman,
21 Byler and Farmwald?

22 THE WITNESS: Yes, Your Honor.

23 A.L.J. LEARY: And so we now are left
24 with -- I'm sorry, Farmwald was Eli or Lester?

25 THE WITNESS: Landowner number 1, Eli.

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2 A.L.J. LEARY: Okay. So now we're
3 left with turbines remaining on the remaining?

4 THE WITNESS: Well, just -- we have
5 the wind leases with him, but they may not currently
6 have any -- they were signed up, but then ultimately
7 in this design and the latest layout, they do not
8 actually have project components on their parcel. So
9 they are -- they do have wind leases with us, but
10 they just aren't -- currently not hosting wind
11 leases. And the wind lease also does allow for some
12 compensation if you're adjacent to project components
13 or turbine.

14 A.L.J. LEARY: Are any of this
15 adjacent to a project -- the turbine?

16 THE WITNESS: Really pushing my memory
17 here, but some of them are I'd have to go back to
18 confirm which ones, I believe -- I -- I would have to
19 look at the map to confirm which were adjacent to
20 turbines.

21 MS. O'TOOLE: May I -- may I, Your
22 Honor?

23 A.L.J. LEARY: Uh-huh.

24 MS. O'TOOLE: It --

25 A.L.J. LEARY: One more question.

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2 MS. O'TOOLE: Okay.

3 A.L.J. LEARY: I just -- so under the
4 existing layout, as updated. The remaining people on
5 this list may have wind leases.

6 THE WITNESS: Yes.

7 A.L.J. LEARY: But will not have
8 turbines on their property?

9 THE WITNESS: That's correct.

10 A.L.J. LEARY: Okay. Thanks.

11 BY MS. O'TOOLE: (Cont'g.)

12 Q. Mr. Woodcock, is there a document
13 that would refresh your recollection as to which of
14 these 8 properties are adjacent to wind turbines?

15 A. Yeah, one of the layout figures
16 or one of the -- the exhibits probably, 3-1 maybe,
17 figure 2-2, could look at it and go through and
18 identify.

19 Q. Do you have that document with
20 you here today?

21 A. I do not.

22 Q. Do you know if anyone from
23 Invenergy who is with you here today has that
24 document?

25 A. I do not. So -- yeah, if it's --

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2 MS. O'TOOLE: If you'll give us just a
3 moment, Your Honor, we'll attempt to locate that
4 document so we can get an answer to Your Honor's
5 question.

6 BY MS. O'TOOLE: (Cont'g.)

7 Q. Could you give the -- the number
8 again, please?

9 A. I believe 3-1 Exhibit or figure 3-1
10 from the Article 10 application would have the
11 information.

12 Q. Thank you. Would that be the one
13 filed on May 24th of 2019?

14 A. Yeah, any -- anyone would be
15 referenced in the application supplement from May
16 24th.

17 MS. O'TOOLE: Let the record reflect
18 that Mr. Wisniewski is showing the witness on his
19 computer what is D.M.M. number 207 is the document
20 that the witness just referenced. So I'm currently
21 looking for the hearing exhibit number.

22 MR. DAX: It's part of Hearing Exhibit
23 5. Well, that's -- excuse me, Hearing Exhibit 7.

24 MS. O'TOOLE: Yes.

25 A.L.J. LEARY: And then what is this

1 16-F-0205 - Canisteo Wind Energy - 8-21-19
2 document?

3 MS. O'TOOLE: This appears to be
4 C.W.E. 03, figure 3-1, proposed major electric
5 generating facility location revi -- revision 1, date
6 --

7 A.L.J. LEARY: So this is the location
8 map, site location update, Mr. Dax?

9 MS. O'TOOLE: This was the document
10 that the witness requested.

11 MR. DAX: I'm sorry, the question?

12 A.L.J. LEARY: Is this the updated
13 site location map?

14 MR. DAX: Yes.

15 A.L.J. LEARY: What is this?

16 MR. DAX: This is from part of Hearing
17 Exhibit 7 from May 24th.

18 A.L.J. LEARY: Okay.

19 MR. DAX: It's figure 3-1, rev 1.

20 A.L.J. LEARY: Applicant Exhibit 3 --

21 MS. O'TOOLE: 7.

22 MR. DAX: Application Exhibit 3,
23 figure 3-1, revision 1.

24 BY MS. O'TOOLE: (Cont'g.)

25 Q. No? Is that not the correct

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2 document?

3 A. No, it doesn't look like -- you
4 know, I could pull up some notes from --

5 MR. DAX: To -- to -- to -- to
6 clarify, let -- why don't we look at Exhibit --
7 figure 4 -- which was the one? 4-4.

8 A.L.J. LEARY: Application Exhibit 4-
9 4?

10 MR. DAX: 4-4. Revision 1. Also,
11 from Hearing Exhibit 7.

12 A.L.J. LEARY: That look right?

13 THE WITNESS: I'm still looking, Your
14 Honor.

15 MS. O'TOOLE: Is that right? Let the
16 record reflect that the witness is looking at the
17 document that Mr. Dax just identified as -- which is
18 -- as part of Hearing Exhibit 7 on Mr. Wisniewski's
19 computer.

20 A.L.J. LEARY: Okay.

21 A.L.J. SHERMAN: And that's D.M.M.
22 209?

23 MR. DAX: I believe that's right.
24 It's D.M.M. 207.

25 A.L.J. SHERMAN: 207?

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2 MR. DAX: Part of D.M.M. 207.

3 A.L.J. SHERMAN: Is it figure 4-4?

4 MR. DAX: 4-4, rev 1.

5 MS. O'TOOLE: Let me know when you're
6 ready, Mr. Woodcock.

7 MR. DAX: Is that not -- is that --

8 THE WITNESS: She was just trying to
9 open up the file so it can searchable which will make
10 it a little faster.

11 MS. O'TOOLE: That's fine.

12 A.L.J. SHERMAN: I have 4-4 at 3. Oh
13 no, I'm sorry, it is 207. I was looking at your item
14 number which is 209.

15 MR. DAX: Oh, okay. How many numbers?

16 THE WITNESS: So -- okay. So I think
17 I'm ready to go through this. And your question, can
18 you repeat it, please?

19 BY MS. O'TOOLE: (Cont'g.)

20 Q. The question was whether any of -
21 - which of the 8 identified proper -- Amish
22 properties in Sharkey 10, Hearing Exhibit 200, if
23 any, are adjacent to proposed wind turbines?

24 A. Let me check. So Lester
25 Farmwald, landowner number 2 would be.

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2 A.L.J. LEARY: Did he say Farmwald --
3 Farmwald?

4 A.L.J. SHERMAN: Yes, and Lester 2.

5 THE WITNESS: And landowner num --
6 number 8 Harvey Miller.

7 BY MS. O'TOOLE: (Cont'g.)

8 Q. Is that all?

9 A. From this list, yes.

10 Q. Okay. And you just testified
11 that Mr. Miller and Mr. Lester Farmwald had
12 properties adjacent to proposed turbines, is that
13 correct?

14 A. Yes.

15 Q. What -- could you define what
16 adjacent means for the record, please?

17 A. In this case parcel -- that's
18 next to a parcel with the wind turbine.

19 Q. Does that necessarily mean that
20 the wind turbine is next to the house on that
21 property?

22 A. I don't know what you mean by
23 that.

24 Q. Withdrawn. Was it your testimony
25 that Canisteo Wind has a lease with Mr. Andy Byler?

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2 A. Yes, that's correct.

3 Q. Are you aware that Mr. Byler has
4 sold his farm?

5 A. I'm aware that he split his
6 property.

7 Q. And what do you mean by that?

8 A. That he divided it. So he
9 retains ownership of -- part of the property under a
10 separate parcel and he sold it to a neighbor, a
11 friend, I don't know.

12 Q. Do you have an understanding of
13 whether Canisteo's Wind leases run with the land?

14 A. I would have to look at this
15 specific lease, but yeah -- and what do you mean by
16 that?

17 Q. In the event that property was
18 transferred to another property owner, would the
19 lease still be in effect?

20 A. I'm not giving legal advice of
21 course. But, yeah, that's my understanding.

22 Q. Is it your understanding that any
23 future owner will be entitled to the compensation
24 under that agreement?

25 A. Yes.

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2 Q. Okay. And is it your position
3 that Canisteo Wind's leases with the 8 members of the
4 Amish community represented in Hearing Exhibit 200 is
5 representative of trusts from the entire Amish
6 community in the Jasper-Woodhull area?

7 A. So I -- you know, I hesitate to
8 answer that. I would say that, you'll see Canisteo
9 Wind has been active in the project area for years
10 now. And we've engaged with town leadership. We've
11 engaged with stakeholders. We've engaged with
12 individual landowners. And we've engaged with
13 individuals that have been identified as Amish in
14 these proceedings. So I -- you know, while the
15 Amish, I think, are a tight-knit community, it's my
16 understanding. They're not community-owned property.
17 So when we've approached the individuals I can only
18 say that -- that we have support from those
19 individuals. And from the folks that have signed
20 leases with us. And the -- you know, the 8 that have
21 been identified here as Amish based on cultural
22 attributes. We probably have a couple other
23 landowners that are Amish based on what we perceive
24 is -- as Amish cultural attributes. But they weren't
25 identified on -- as Amish in these hearings. So I

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2 can't say specifically that they are or not.

3 Q. Moving on. Has Canisteo Wind
4 performed or commissioned any study regarding the
5 impact on home prices within the vicinity of the wind
6 project?

7 A. Have we performed any studies on
8 --

9 Q. On any potential impact on home
10 price -- home value?

11 A. No, we have not performed any
12 studies.

13 Q. And has Can -- Canisteo Wind
14 performed or commissioned any study regarding the
15 impact on tourism in the vicinity of the wind
16 project?

17 A. Have we commissioned any studies?
18 No, we have not commissioned any studies.

19 Q. Turning your attention to
20 Canisteo Wind's response to Sharkey 1. Do you see
21 that in front of you?

22 A. Just a minute, please. Yes.

23 Q. And this is item -- I believe,
24 218 on Mr. Dax's list.

25 MS. O'TOOLE: May we have a proposed

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2 hearing exhibit number, Your Honor?

3 A.L.J. LEARY: Yeah. I believe it's
4 221.

5 MS. O'TOOLE: Thank you.

6 BY MS. O'TOOLE: (Cont'g.)

7 Q. Referring to proposed Hearing
8 Exhibit 221. Are you familiar with this document?

9 A. Yes, I am.

10 Q. Did you prepare this document?

11 A. Yes.

12 Q. Is this a true and accurate copy
13 of the document that you prepared?

14 A. Based on a quick scan, yes.

15 Q. You may take a longer than a
16 quick scan if you --

17 A. All right.

18 Q. -- feel more comfortable.

19 A. Yes, looks correct.

20 MS. O'TOOLE: At this time, Your
21 Honor, we would ask that proposed Hearing Exhibit 221
22 be admitted into evidence.

23 A.L.J. LEARY: Any objections? So
24 admitted.

25 BY MS. O'TOOLE: (Cont'g.)

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2 Q. Mr. Woodcock, do you have an
3 understanding of whether there is a home located on
4 the property belonging to Harvey Miller which
5 Canisteo Wind has a wind lease for?

6 A. Can you be specific?

7 Q. Is --

8 A. Which parcel?

9 Q. Certainly, if you refer to your
10 response to Sharkey 10, Hearing Exhibit 200?

11 A. Landowner number 8?

12 Q. Yes.

13 A. Yeah, I see it.

14 Q. And does that have a -- a parcel
15 number there?

16 A. 307.00-01-004.000.

17 Q. Does -- do you have an
18 understanding of whether or not that property is
19 improved with a residence?

20 A. I do not, off the top of my head.

21 Q. Okay. I'd like to turn your
22 attention back to Hearing Exhibit 7, which is figure
23 4-4, tax parcel's-rev 1?

24 A.L.J. LEARY: Just for the record.
25 That is not Hearing Exhibit 7. Is it -- it's

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2 Application Exhibit 7 or is it Hearing Exhibit 7?

3 MR. DAX: It's part of Hearing Exhibit
4 7.

5 A.L.J. LEARY: Sorry, apologies. My
6 mistake.

7 MS. O'TOOLE: Mr. Wisniewski will walk
8 it over to you.

9 BY MR. O'TOOLE: (Cont'g.)

10 Q. Do you have figure 4-4 in front
11 of you?

12 A. Yes, I do.

13 Q. And does -- do you see on figure
14 4-4 the property I.D. that you just identified as
15 belonging to Harvey Miller?

16 A. Yeah, I do. I'm looking at sheet
17 19.

18 Q. On sheet 19, is that property
19 shaded gray?

20 A. No, it is not. It's -- well,
21 shaded gray, yeah.

22 Q. Yes.

23 A. Or it's not shaded actually it's
24 too -- yeah.

25 Q. On that property is it -- is

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2 there a notation that that property is vacant?

3 A. I don't believe that's shaded as
4 vacant land. I believe it's just -- that's just the
5 -- the background area, the aerial imagery.

6 MR. WISNIEWSKI: Your Honor,
7 permission to ask the questions since I have the
8 document over here.

9 A.L.J. LEARY: Yup. Go ahead.

10 MS. O'TOOLE: Thank you.

11 BY MR. WISNIEWSKI:

12 Q. Can you confirm that the document
13 has a color-coded key on the right-hand side?

14 A. Yeah, the legend.

15 Q. There's a legend?

16 A. Yeah.

17 Q. And does the legend list the land
18 use for each parcel?

19 A. It does.

20 Q. Or that land is--

21 A. It does, yeah.

22 Q. And each one of those land use is
23 a vacant land?

24 A. Yes, it is.

25 Q. And is the color a vacant land

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2 array?

3 A. Yes.

4 Q. And what color is Mr. Miller's
5 land shaded?

6 A. That's just background aerial
7 imagery. It's not --

8 Q. So you -- so then you're saying
9 that this document lacks information for the land use
10 of Mr. Miller's property?

11 A. I am saying that it's not vacant
12 land. I guess, according to this.

13 Q. If it is not shaded how -- strike
14 that question. Does this document complete -- does
15 this document included a complete list of land uses
16 for all tax parcels?

17 A. Yeah, it does. It does. He's
18 not categorized.

19 A.L.J. LEARY: He's not categorized as
20 what?

21 THE WITNESS: As any of these -- these
22 -- we don't have a null --

23 A.L.J. LEARY: As any of these, and
24 for the record --

25 THE WITNESS: As any of these, sorry -

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2 - any --

3 A.L.J. LEARY: -- what does that mean?

4 THE WITNESS: So let me be clear. The
5 legend indicates different shadings, 1 is hatched
6 which would be facility site. A light green is
7 agricultural. Yellow is residential. Gray is vacant
8 land. Green, all of is wild forested conservation
9 lands and public parks. Mr. Miller does not have any
10 shading at all in this particular map.

11 A.L.J. LEARY: Could you point out his
12 parcel?

13 THE WITNESS: Right there.

14 A.L.J. LEARY: So that does not mean
15 vacant land?

16 THE WITNESS: No, if you look at --
17 for example, that would be, I know it's a little
18 tricky to see but that would be.

19 A.L.J. LEARY: No, it's not tricky to
20 see --

21 THE WITNESS: Okay.

22 A.L.J. LEARY: -- that is the same
23 color that it appears in the background that there
24 may be some foresting or other undergrowth. But they
25 look like the same thing to me. But --

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2 THE WITNESS: Oh, to -- to my eye,
3 that doesn't look like it was shaded.

4 A.L.J. LEARY: Well, to your
5 knowledge, are they the same thing? To your
6 knowledge --

7 THE WITNESS: No, to me --

8 A.L.J. LEARY: -- is this vacant land?

9 THE WITNESS: No, to me, I -- I look
10 at that like he was not characterized in this map.
11 He was not categorized.

12 A.L.J. LEARY: Okay. So is there
13 anyone else on this map that's not characterized?

14 THE WITNESS: I would have to go
15 through the 35 odd parcels.

16 A.L.J. LEARY: Well, just find another
17 one.

18 THE WITNESS: Okay.

19 A.L.J. LEARY: That you -- that is
20 similar to this, uncharacterized.

21 THE WITNESS: Well --

22 A.L.J. LEARY: So here's -- here's
23 one.

24 THE WITNESS: Yeah, are they?

25 A.L.J. LEARY: That looks not

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2 characterized?

3 THE WITNESS: No, I would say that
4 that has the gray vacant land designation outside of
5 the facility site. For example, those aren't shaded
6 or characterized.

7 A.L.J. LEARY: What about this?

8 THE WITNESS: That, to me, looks like
9 it is vacant land. You can see it sort of has that
10 hazy gray --

11 MS. O'TOOLE: Could you identify for
12 the record what properties your pointing to?

13 THE WITNESS: Yeah --

14 A.L.J. LEARY: We're looking at --
15 where is that?

16 THE WITNESS: -- it was, this is the
17 Morales property, 304.00-01-023.111.

18 MS. O'TOOLE: Thank you.

19 A.L.J. LEARY: So -- sorry. The
20 information on these maps is incomplete because it's
21 --

22 THE WITNESS: I would say --

23 A.L.J. LEARY: Excuse me.

24 THE WITNESS: I'm sorry.

25 A.L.J. LEARY: Because it does not

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2 have everyone characterized according to the legend,
3 is that your testimony?

4 THE WITNESS: No, my testimony is that
5 Mr. Miller's parcel -- Mr. Harvey Miller's parcel
6 specifically does not have a characterization
7 apparently which looks -- looks like just a mistake
8 to me.

9 BY MR. WISNIEWSKI: (Cont'g.)

10 Q. Can you please state for the
11 record the parcel number where the parcel owned by
12 Mr. Harvey E. Miller?

13 A. 307.00-01-004.000.

14 Q. And is it your testimony today
15 that there are any other parcels in this exhibit that
16 have not been characterized by land use?

17 A. Within the facility site?

18 Q. Is it your testimony today that
19 in the exhibit that is presently before you which
20 includes tax parcel information for properties that
21 are under lease with Invenergy that the only property
22 under lease with Invenergy that lacks land use
23 information is Mr. Miller's property?

24 A. I cannot say that definitively
25 without looking through each sheet on this file. So

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2 --

3 Q. Do you any explanation of why Mr.
4 Miller's property would lack that information?

5 A. I would be speculating.

6 Q. Did you review this map in
7 preparing your response to Mr. Sharkey's information
8 request?

9 A. No, I did not.

10 MS. O'TOOLE: Your Honor, may I have a
11 moment to confer with Mr. Wisniewski?

12 A.L.J. LEARY: Sure.

13 (Off the record, 12:36 to 12:38)

14 MS. O'TOOLE: We have no further
15 questions of this witness.

16 A.L.J. LEARY: Okay. Anybody else
17 have questions for this witness?

18 MS. MEAGHER: I do, Your Honor.

19 A.L.J. LEARY: Ms. Meagher.

20 MS. MEAGHER: I'd like to leave a
21 little documents with us. Can you pass this down?

22 A.L.J. LEARY: Okay. Take your --
23 take the microphone.

24 MS. MEAGHER: All right.

25 A.L.J. LEARY: And if you have

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2 something you want to hand to the witness, I can help
3 you with that.

4 MS. MEAGHER: I just want to know --

5 A.L.J. LEARY: We're back on the
6 record.

7 MS. MEAGHER: -- if the rebuttal
8 testimony is -- his rebuttal testimony has already
9 been submitted into the record, correct?

10 A.L.J. LEARY: Yes.

11 MS. MEAGHER: Okay. I also wanted to
12 reference it was the application Exhibit 6, and I
13 don't know that was number, I think, 286. It might
14 have been on the exhibit list.

15 A.L.J. LEARY: Okay. I don't have a
16 286.

17 MS. MEAGHER: Well, it was under
18 Exhibit 6.

19 MR. DAX: I think she was referring to
20 Exhibit 6, Revision 2.

21 MS. MEAGHER: Yes.

22 MR. DAX: Which is -- was filed on May
23 28th, and is D.M.M. number 220.

24 MS. MEAGHER: 220.

25 MR. DAX: And is part -- is Hearing

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2 Exhibit Number 8.

3 A.L.J. LEARY: Hearing Exhibit 8.

4 MS. MEAGHER: All right. Okay.

5 A.L.J. LEARY: Okay.

6 MS. MEAGHER: Yup. And then also --
7 do I have a question about that exhibit? Yes. And
8 then in my questioning, I would also like to
9 reference, it's under D.M.M., the updated shadow
10 flicker maps submitted on July -- or, not July, June
11 19th. And I believe -- is the D.M.M. number on the
12 right or the left of those? Okay. So it would be
13 D.M.M. number 228.

14 A.L.J. LEARY: I'm going to suggest we
15 take these one at a time.

16 MS. MEAGHER: Okay.

17 A.L.J. LEARY: And so if you have one
18 that you want to ask the witness a question about.

19 MS. MEAGHER: All right. I didn't
20 know if you wanted them all --

21 A.L.J. LEARY: No. Let's just so --

22 MS. MEAGHER: -- upfront.

23 A.L.J. LEARY: -- the -- the first
24 one, which I think you identified or Mr. Dax --

25 MS. MEAGHER: It's his rebuttal

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2 testimony.

3 A.L.J. LEARY: Okay.

4 BY MS. MEAGHER: (Cont'g.)

5 Q. On page 9, line 13 and 14, you
6 state that Mr. par -- Mr. Fry Sparso (phonetic
7 spelling) was among those prioritized for contact,
8 though, after multiple attempts C.W.E. was unable to
9 make contact. Can you tell me what the -- how many
10 times is multiple?

11 A. 3, 4 something like that.

12 Q. Okay. Who made that contact?

13 A. Our land agent, one of our land
14 agents.

15 Q. And do you know who that would
16 be?

17 A. In this case, I believe it's --
18 it would be Mike Mulcahy.

19 Q. Okay. When were these contacts
20 made?

21 A. You know, I would have to look or
22 confer with Mr. Mulcahy to know specifically when he
23 was at the Fry residence.

24 Q. And by -- and by what means were
25 these contacts made?

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2 A. I know that he stopped by the
3 property at least twice and I believe that he made --
4 attempted to contact him by phone as well.

5 Q. So did anyone ever actually speak
6 to Mr. Fry?

7 A. No.

8 Q. Is it fair to say then that at no
9 time were you in discussion with Mr. Fry regarding a
10 setback lease?

11 A. It's fair to say that we
12 attempted to contact him and we weren't -- were
13 unable to do so, yeah.

14 Q. But you were never actually in
15 discussion with him regarding the lease?

16 A. No. Not in formal discussions,
17 no.

18 Q. Okay. Starting on page 8 and on
19 to page 9, it says, "Mr. Fry indicates that he was
20 incorrectly listed as a project participant." And
21 then it goes on to say, as noted in Exhibit 6 of the
22 Article 10 permit applications on to page 9 that the
23 properties are considered participating if they have
24 signed an agreement with C.W.E. or are discussing
25 such an agreement with C.W.E. Okay. Would you agree

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2 that you were -- neither had a signed lease with Mr.
3 Fry nor were discussing a lease with Mr. Fry?

4 A. Well, we -- we have approximately
5 212 landowners that are signed. We have, you know,
6 others that we're in active negotiations with another
7 as indicated here that we intended to contact. And
8 at the time, you know, we have not been able to
9 contact Mr. Fry despite repeated attempts and that's
10 my mistake for, you know, not properly prioritizing.

11 A.L.J. LEARY: Excuse me. The
12 question is a very clear one and I need you to answer
13 that question on the record.

14 THE WITNESS: Okay.

15 A.L.J. LEARY: After Ms. Meagher
16 defined what -- or repeated how Canisteo Wind defined
17 participating. I think you need to answer that
18 question --

19 THE WITNESS: Sure.

20 A.L.J. LEARY: -- about whether Mr.
21 Fry was either a signatory on a lease or in
22 discussions within Canisteo Wind's definition is,
23 what is the case there? Was he one or the other?

24 THE WITNESS: We were not in active
25 discussions with him, no.

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2 A.L.J. LEARY: But he was included on
3 that list as a participating landowner.

4 THE WITNESS: That's correct.

5 A.L.J. LEARY: Is that correct?

6 THE WITNESS: That's correct.

7 A.L.J. LEARY: Okay. So just do the
8 questioner a favor, Ms. Meagher here.

9 THE WITNESS: Okay.

10 A.L.J. LEARY: And so listen carefully
11 to the question and answer the question. If you want
12 to add something after that, feel free to do that.
13 But the record needs to hear your answer to that
14 question.

15 THE WITNESS: Fair. I understand.

16 BY MS. MEAGHER: (Cont'g.)

17 Q. That being said, that answers my
18 question. Would it be -- would you say then if that
19 is the case with Mr. Fry that there were also other
20 landowners that were listed as participating that
21 were indeed not participating?

22 A. As noted in the testimony or
23 rebuttal that states we identified a handful of
24 parcels and we intended to engage, so there were a
25 couple that were not contacted we intended to

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2 contact, but we had not yet at the time of the map
3 production.

4 Q. Would you then agree that if
5 you've included non-participating property owners as
6 participating property owners that then in your data
7 presented to under shadow flicker that those numbers
8 are likely not correct?

9 A. I'd have to confer with the
10 person who ran those modeling. The modelings --
11 again, these are -- this was the public presentation
12 in that data not the private characterization of it.

13 Q. Because Mr. Fry was listed as
14 non-participating and then later was listed as
15 participating under the amendments made on the 24th
16 of May and, therefore, that changed the data of how
17 many non-participating shadow flicker -- non-
18 participating property owners were receiving shadow
19 flick -- flicker, correct?

20 A. Can you restate that?

21 Q. Mr. Fry was previously a non-
22 participating property owner. Then you mislabeled
23 him, made a mistake, as you say as a participating
24 property owner. A lot of that data related to on
25 shadow flicker, who was participating and who was

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2 non-participating and how many non-participating
3 property owners were receiving shadow flicker. So
4 that means that Mr. Fry was no longer included in
5 that data. So that data is then incorrect, is it
6 not?

7 MS. SENLET: Objection, Your Honor. I
8 think there was a very long statement in that
9 question. If he can have 1 question for the witness,
10 perhaps he will be able to answer better.

11 A.L.J. LEARY: Ms. Senlet, Ms. Meagher
12 is the only person on your side of the table who is
13 not a lawyer. So I think all of us need to give Ms.
14 Meagher a little latitude and, in fact, a little
15 assistance. You want to assist your witness in
16 answering that question, fine. But I'm going to
17 assist her, and I'm going to overrule your objection.
18 You're objecting to the form of the question, I
19 think, and we don't really follow the rules of
20 evidence. So I think you're -- you're probably
21 right. But I think what Ms. Meagher is trying to say
22 in -- in a quick way, almost too fast, because
23 there's a lot of information here is what is going on
24 with the shadow flicker numbers if there are people
25 included as participating that -- I think that your

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2 shadow flicker expert testified about this morning,
3 no shadow flicker numbers. Let me ask it this way.
4 Mr. Woodcock, did you give the shadow flicker
5 witness, whose name escapes me --

6 MR. MULLEN: Runner.

7 MS. MEAGHER: Runner.

8 A.L.J. LEARY: -- run -- Runner, the
9 numbers -- the -- the listing of who is participating
10 and who is not participating? Who gave him that
11 information?

12 THE WITNESS: We give him that
13 information.

14 A.L.J. LEARY: Okay. So at what point
15 in time did you give him that information?

16 THE WITNESS: It's constantly updated
17 as we sign landowners.

18 A.L.J. LEARY: Got it.

19 And my question is a
20 follow-up to your handful of others, handful of
21 others. Let me just ask you, when you said there are
22 handful of others listed as participating that you
23 intended to talk with, right?

24 THE WITNESS: Uh-huh.

25 A.L.J. LEARY: How many people listed

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2 on the participating list is a handful? How many of
3 those, and who are they?

4 THE WITNESS: I don't have names in
5 front of me. But, yeah, 3 or 4 parcels.

6 A.L.J. LEARY: So your testimony is
7 there's 3 or 4 parcels. Or 3 or 4 persons listed as
8 participants who are not?

9 THE WITNESS: On this map.

10 A.L.J. LEARY: On what map?

11 THE WITNESS: This -- well, on the --
12 for the sake of Figure 19 1, that's referenced here.
13 So this is what -- I -- I believe this is -- this is
14 I believe referencing the publicly available version
15 of the real property map, where we are identifying
16 participating or non-participating.

17 A.L.J. LEARY: Right.

18 THE WITNESS: And for --

19 A.L.J. LEARY: And so that has not
20 been updated?

21 THE WITNESS: That map?

22 A.L.J. LEARY: Correct.

23 THE WITNESS: I don't believe we have
24 submitted a revision to that map. We have updated
25 our data now that Mr. Fry has publicly said he is

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2 not -- doesn't want to participate. We have updated
3 the data.

4 A.L.J. LEARY: I'm talking about Mr.
5 Fry and the handful of others.

6 THE WITNESS: We have updated that
7 data now with respect -- A.L.J. LEARY: Wait, hold
8 on. What's that mean? Updated that data? Why in
9 D.M.M. -- what in the application is that update, to
10 your knowledge?

11 THE WITNESS: I don't know if it has
12 been submitted to D.M.M.

13 A.L.J. LEARY: Okay.

14 MR. MULLEN: Your Honor, could I
15 interject for a minute?

16 A.L.J. LEARY: Yes? You want to be on
17 the record?

18 MR. MULLEN: Yes. I -- I believe if
19 there is a confidential exhibit that disclosed who
20 the people who were -- who were --

21 A.L.J. LEARY: Participate --

22 MR. MULLEN: -- listed as
23 participating but haven't signed leases yet. I don't
24 know if that --

25 A.L.J. LEARY: There is, in fact, I

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2 believe. Isn't that correct, Mr. Dax?

3 MR. DAX: Yes.

4 A.L.J. LEARY: And that -- that
5 document has footnotes that define participating. I
6 believe it's footnote, or 1 footnote, but footnote 2.
7 Does that sound familiar, Mr. Woodcock?

8 THE WITNESS: They're not the specific
9 footnote, but the existence on the map -- of the map,
10 yes.

11 A.L.J. LEARY: No. I'm not talking
12 about a map. And Mr. Mullen isn't either, he's
13 talking about a listing of participating non-
14 participating witnesses. Correct, Mr. Mullen?

15 MR. MULLEN: Landowners.

16 A.L.J. LEARY: I'm sorry. Landowners.

17 MR. MULLEN: Yes.

18 A.L.J. LEARY: What did I say,
19 witnesses?

20 MR. MULLEN: Yeah.

21 A.L.J. LEARY: It's time for lunch.

22 MR. MULLEN: Yes. I was talking about
23 there is a list of who is listed as participating but
24 hasn't signed, which I guess is a broader category
25 than some of the people you're discussing right now.

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2 But that's --

3 A.L.J. LEARY: Yeah. So this is a
4 problem and I'm directing this to both the witness
5 and -- and Mr. Dax and Ms. Senlet. That definition
6 of participating isn't going to fly. You need to
7 define by the close of this hearing who has signed a
8 lease and who hasn't. It doesn't matter to the
9 Siting Board if you're in discussions whether the --
10 if the deal's done, it's a signed deal. If it's not,
11 it's not. It's black-white. So that's where -- you
12 know, I'm struggling with how -- how much is done
13 here and what's been identified as a maybe. You
14 can't identify in this record anything as a maybe.
15 You can say in a footnote, these people we're still
16 in discussion with but you can't call them
17 participating because participating mean the deal's
18 done. That is how we're going to define in this
19 proceeding participating because they've signed the
20 deal.

21 If they haven't signed the deal, they
22 can't be identified in that way. So there is
23 information in the record here that is inaccurate in
24 terms of how we view lots and lots of issues,
25 including shadow flicker or noise or how much of --

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2 how much work the applicant has to do in terms of
3 getting the project build? Can it be built on land
4 that you either have a lease on or you owned? That's
5 an important issue here for the Siting Board.

6 So when is that information going to
7 be updated on who is actually participating, not in
8 discussions, who is -- has signed a deal and
9 therefore -- and who hasn't. You cannot create a
10 third category, but you can't just have those 2
11 categories and define it as a maybe. It might
12 happen. Hasn't happened yet, might happen but give
13 us that information straight. Do not define
14 participating if you don't have a lease or other
15 agreement with a landowner. When can you update that
16 list?

17 MR. DAX: We'll provide an updated
18 Figure 13, Exhibit 13, that's Figure 13-1.

19 A.L.J. LEARY: I'm talking about the
20 confidential list Mr. Mullen refers to. Is that -- I
21 don't have that --

22 MR. MULLEN: Yeah. I think that is 13
23 --

24 A.L.J. LEARY: It -- is it?

25 MS. MEAGHER: That's -- it's a map.

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2 MR. MULLEN: Yes.

3 MS. MEAGHER: It's the figure.

4 MR. DAX: That's Figure 13-1 is a map.

5 A.L.J. LEARY: Yeah. I don't need a
6 map.

7 MR. DAX: Well then --

8 A.L.J. LEARY: I need the lease Mr.
9 Mullen is referring to with the footnotes.

10 MR. MULLEN: Oh, I -- I apologize. I
11 was talking about the map.

12 A.L.J. LEARY: You are?

13 MR. MULLEN: Yes.

14 MR. DAX: And this map --

15 A.L.J. LEARY: Okay. I'm talking
16 about the list with the footnote.

17 MR. DAX: Can I? Well, this is not --
18 this is the map that has all the information you want
19 and the categories are participating in -- in-
20 negotiation. This Figure 13-1 it's a -- it's a
21 confidential doc -- document that was filed pursuant
22 to the protective order. It's --

23 A.L.J. LEARY: Is there -- is there a
24 confidential document that you filed that lists all
25 of the landowners on it?

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2 MR. DAX: No.

3 A.L.J. LEARY: And has that footnote
4 that defines not in that way but in the way that I
5 have indicated?

6 MR. DAX: We did not provide a list
7 such as you described, we pro -- the Figure 13-1 is
8 one that's called for by the regulations.

9 A.L.J. LEARY: Okay.

10 MR. DAX: And that provides the
11 information that you're looking for. And as I said,
12 it had a category of participating and in-
13 negotiation. And on that map, in -- in yellow, there
14 may be some in-negotiation properties listed as in-
15 negotiation.

16 A.L.J. LEARY: It's clear, though,
17 that you've identified that correctly.

18 MR. DAX: But -- okay.

19 A.L.J. LEARY: Correct?

20 MR. DAX: Yes.

21 A.L.J. LEARY: They're in
22 negotiations?

23 MR. DAX: Right.

24 A.L.J. LEARY: Here's my question, and
25 I am sorry, I do not have fresh in my mind what this

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2 document is. I want to say it's a noise document.
3 It's indicating, you know, who's -- who -- you know,
4 what the dBA in each of these homes are. And on that
5 document, there are footnotes and I could be
6 mistaken. Mr. Miller, help me out here, the
7 definition. And I think Mr. Woodcock is familiar
8 with this. The definition is they are -- they have
9 signed a lease, definition of participating and sign
10 a lease or in discussions. Is that -- what is this?

11 MS. MEAGHER: Well, that's exhibit --
12 yeah, a page on Exhibit 6 -- 6, page 15. It's the
13 only page I had copy, but is that the footnote you're
14 looking for?

15 A.L.J. LEARY: It is. But this is not
16 the document I'm thinking.

17 THE WITNESS: Are -- are you referring
18 to the tables that were provided at the public
19 statement hearing?

20 MR. MULLEN: I have the map, if that's
21 what you want, Your Honor.

22 A.L.J. LEARY: I do not need a map.
23 This is a list, and I think we should -- should just
24 move on. But I want to caution the applicant that
25 you can't define and list someone is participating if

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2 they have not signed a lease in any document in these
3 proceedings.

4 MR. DAX: In the public versions, we
5 list them as participating because we do not want to
6 disclose the very things that the Siting Board, the
7 R.A.O. has protected in this Article 10 applications,
8 which is Figure 13-1. If we were to provide a list
9 like that, we would have disclosed the information
10 that the R.A.O. and Your Honors have already
11 protected in the form of 13-1.

12 A.L.J. LEARY: You can disclose it to
13 the parties who have signed the protective order and
14 to the examiners and to the Siting Board. That's my
15 point. And --

16 MR. DAX: Okay. We -- we have done
17 that with -- with 13-1. If you want us to create a -
18 - a list of --

19 A.L.J. LEARY: That's a confidential
20 document. You've already done that.

21 MR. DAX: Right. That's what I'm
22 saying.

23 A.L.J. LEARY: Okay. What I will do
24 tonight is look through carefully the application
25 updates and find the document I am recalling, which

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2 has this footnote and this may be another separate
3 document that has the same footnote that I've been
4 handed, which anyone is welcome to see. It's exhibit
5 -- Application Exhibit 6, which list as the footnote,
6 Footnote 3, "Non-participating properties -- " this
7 doesn't make sense. But --

8 MS. MEAGHER: Yeah, considered
9 participant --

10 A.L.J. LEARY: -- I think what it
11 intends to say is properties are considered --
12 actually, it does say, "Properties are considered
13 participating if they have signed an agreement with
14 C.W.E. or are discussing such an agreement with
15 C.W.E." So --

16 MS. MEAGHER: Might I add --

17 A.L.J. LEARY: As long as -- as long
18 as you understand what my concern is by listing
19 somebody as participating who is not participating
20 which is the point of Ms. Meagher's testimony to this
21 witness, Mr. Woodcock, about Mr. Fry and the handful
22 of others that may be listed on 13 or elsewhere as
23 participating when they are not, in fact,
24 participating.

25 That needs to be fixed if it is, in

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2 fact, the case. So let's -- let's move on, but I --
3 I want to clarify that this record can't accept
4 somebody as participating unless you have a signed
5 lease.

6 MS. MEAGHER: Uh-huh.

7 A.L.J. LEARY: You can tell us you're
8 in discussions and you might have a signed lease in
9 two days. But -- and you can update, but you can't -
10 - you can't rely on something here when someone has
11 not signed a lease. You can't rely on that today.

12 MR. MULLEN: Your Honor, can I -- can
13 I inter --

14 A.L.J. LEARY: Mr. Mullen?

15 MR. MULLEN: Yes. The towns do
16 believe that it would be helpful in leaving a
17 confidential, but to have a table with receptor I.D.s
18 of who is not participating but is in negotiation.
19 We -- we think that would be helpful.

20 A.L.J. LEARY: That's what I thought I
21 had. I thought that there was a table here. There
22 is no table that's similar to the one. Mr. Mullen --
23 Mr. Woodcock?

24 THE WITNESS: We did provide a table
25 at the public statement hearing that contained that

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2 information. And I believe we've updated it.

3 A.L.J. LEARY: That's not really in
4 D.M.M. though so.

5 MR. MULLEN: Specific -- specifically
6 with the people who are in-negotiations?

7 THE WITNESS: Participating or non-
8 participating.

9 MR. MULLEN: Right. But what -- what
10 I am asking about is someone who is listed as
11 participating but hasn't yet signed.

12 THE WITNESS: Yeah. That -- that
13 subcategory.

14 MR. MULLEN: Okay. Well, we need to
15 add that subcategory.

16 THE WITNESS: Yeah.

17 MS. MEAGHER: Might I also add, Your
18 Honor, that my point is they are trying to make a
19 third category of -- also people that they intend to
20 engage?

21 A.L.J. LEARY: I understand --

22 MS. MEAGHER: Okay.

23 A.L.J. LEARY: -- this is a pretty
24 black and white thing for me.

25 MS. MEAGHER: Okay.

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2 A.L.J. LEARY: It's all about, did
3 they sign a lease or other agreement, or did they not
4 and how they are characterized on this record? So if
5 we could just -- Mr. Dax, can I ask your team to take
6 a look at this issue this evening and let me know
7 tomorrow to what degree there is information here
8 that is not quite what -- you know, I can close this
9 record with? Because it doesn't have that accuracy
10 of what, I believe, you told me was on that map which
11 I agree with you is accurate. If they are in
12 discussions, you've noted it. But there are other
13 documents, perhaps, in this record that do not make
14 that clear.

15 MR. DAX: We will look at -- I'm going
16 to look at the maps that were provided at the public
17 statement hearing which are on D.M.M. number 188 and
18 see what information is on those maps and what
19 information may be incorrect or what information may
20 have a categorization that has done to enable the
21 protection of confidential information while still
22 providing the underlying information to the public
23 which is what was done at the public statement
24 hearing.

25 A.L.J. LEARY: I don't want you to

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2 only look at maps, I want you to look at any table
3 that identifies --

4 MR. DAX: Well, this has tables.
5 There are receptor tables --

6 A.L.J. LEARY: Okay.

7 MR. DAX: -- that are included with
8 the map.

9 A.L.J. LEARY: Okay. Perfect. I
10 think that's what I'm -- I'm talking about, right?
11 What D.M.M. number is that?

12 MR. DAX: 188.

13 A.L.J. LEARY: And is that May 24th?

14 MR. DAX: No. These were provided on
15 April 9th.

16 A.L.J. LEARY: Yeah. That may need to
17 be updated, it sounds like.

18 MR. DAX: Right. Well -- that's what
19 we'll do. We'll look at that and see what --

20 A.L.J. LEARY: Okay. And you did not
21 update that on May 24th because maybe you haven't
22 releases --

23 MR. DAX: Well, that was not part of
24 the application up-- you know, updates.

25 A.L.J. LEARY: I see.

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2 MR. DAX: That was something that we
3 did at your direction for the public statement
4 hearings --

5 A.L.J. LEARY: Got it. Okay.

6 MR. DAX: -- in response to Ms.
7 Meagher's concerns.

8 A.L.J. LEARY: Okay. Great. Ms.
9 Meagher, did you have any other questions for this
10 witness?

11 MS. MEAGHER: I have one more quick
12 thing, sorry.

13 BY MS. MEAGHER: (Cont'g.)

14 Q. One page 10 of your testimony,
15 line 17, to paraphrase basically state that Mr. Brown
16 and I multiple times corresponded with you regarding
17 shadow flicker receptors and shadow flicker hours.
18 On page 11 line 4, you state that you provided me
19 with a K.M.Z. file to identify shadow flicker on
20 December 6, 2018. Is that correct?

21 A. Yes.

22 Q. Was this information ever made
23 available to the general public, the K.M.Z. file?

24 A. To the general public, no, there
25 was not. From our perspective, a good format to

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2 present that information, however, and we knew your
3 interest in identifying shadow receptors and wanted
4 to give you the most powerful tool that we could give
5 you --

6 Q. Right.

7 A. -- to identify receptors in
8 locations.

9 Q. At what point did more detailed
10 requested shadow flicker maps become available to the
11 public?

12 A. Let me just make sure I'm
13 understanding that. When did we update the shadow
14 flicker map or when did we provide updated maps?

15 Q. Provide more -- the more detailed
16 shadow flicker maps that we had been requesting?

17 A. It -- I believe it was through
18 the public statement hearing, so April 2019.

19 Q. I believe that you -- you put in
20 receptor numbers on April 19th, but actual shadow
21 flicker maps that showed the outlines were not
22 presented until June 19th on D.M.M. numbers 272. So
23 it was over 6 months since we had requested that
24 information before it was provided to us.

25 A. Well, as I said, we felt like

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2 we'd given you a -- an even more powerful tool than
3 maps to identify receptors.

4 Q. To myself personally, but not to
5 the general public, correct?

6 A. You were the one asking for that
7 information, yes.

8 Q. But this information was not
9 provided to the general public until June 19th of
10 2019?

11 A. The map that you were
12 specifically you're referring to? That's correct.
13 The information was there and identifiable. In the
14 existing application, it was not in the format that
15 you requested.

16 MS. MEAGHER: That concludes my
17 questions.

18 A.L.J. LEARY: Thank you.

19 MS. MEAGHER: You're welcome.

20 A.L.J. LEARY: Anyone have additional
21 questions? Ms. O'Toole?

22 MS. O'TOOLE: Just one more question.
23 Well, a -- a preface and then a question.

24 BY MS. O'TOOLE:

25 Q. Mr. Woodcock, you testified that

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2 you're responsible for providing the list of
3 participating vs. non-participating landowner
4 information to the cons -- C.W.E.'s consultants. Is
5 that correct?

6 A. That is correct.

7 Q. So to your knowledge, was the
8 noise impact analyses performed by Canisteo Wind done
9 listing property owners who are only under
10 negotiation for the leases but not actually under
11 lease as participating?

12 A. I would want to confirm before
13 answering that.

14 Q. Is there something you can look
15 at to confirm?

16 A. Not at present, not in front of
17 me, no.

18 Q. Do you -- what would you want to
19 look at to confirm?

20 A. I would want to confer with our
21 consultant.

22 A.L.J. LEARY: While you do that,
23 we'll take a quick break.

24 MS. O'TOOLE: Thank you.

25 (Off the record, 1:05 to 1:15)

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2 A.L.J. LEARY: Mr. Dax and I were just
3 discussing a couple of the application updates and
4 the identification for purposes of noise and shadow
5 flicker exposure, if you will, and whether those
6 numbers with respect to the participating property
7 owners were accurate under the preferred definition
8 of participating which would only include those
9 people who had signed leases. Not people who were in
10 discussions or going to be in discussions or
11 intending to be in discussions.

12 So the significance of this is, as I
13 mentioned to Mr. Dax, that numbers for both shadow
14 flicker hours as well as noise dBA applying to
15 participating versus non-participating are different.
16 So there may be information here applying a set of
17 numbers for shadow flicker noise to a person or
18 persons to whom those numbers should not apply
19 because they haven't signed the lease yet.

20 So those are the kind of documents I
21 would ask that you look at just to --

22 MR. DAX: And update.

23 A.L.J. LEARY: -- and update and give
24 them a robust. And they may since May was a couple
25 of months ago, be updated --

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2 MR. DAX: Right.

3 A.L.J. LEARY: -- northward to
4 encompass additional lease agreements or other
5 information.

6 MR. DAX: So here is what I propose,
7 if it's satisfactory to you. In exhibits like 15
8 other exhibits were made, do numbers of participating
9 or numbers of receptors, we will go through and make
10 sure that in categorizing them as participating or
11 non-participating. First, if they were up-to-date.
12 And then in a non-public version we will further
13 break down a category to reflect the breakdown on
14 Exhibit 13, Figure 13-1, which has the in-
15 negotiation. So that if it's participating, it's a
16 done signed deal. If it's in negotiation, it's in
17 negotiation and then all the others are listed as
18 non-participating. And that will be done under this
19 protect-- protective order.

20 A.L.J. LEARY: Great.

21 MR. DAX: Is that satisfactory?

22 A.L.J. LEARY: I think that is.

23 MR. DAX: Okay.

24 A.L.J. LEARY: I do caution you based
25 on Mr. Woodcock's testimony that you cannot include

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2 in-negotiations anybody you intend to talk to.

3 MR. DAX: Yeah. I get it. I -- I
4 hear you loud and clear.

5 A.L.J. LEARY: Okay.

6 MS. O'TOOLE: Your Honor.

7 A.L.J. LEARY: Thanks. Yeah.

8 MS. O'TOOLE: We would request that
9 also identified are those people who have been
10 previously misidentified as being in-negotiation or
11 in-discussion or having a lease.

12 MR. DAX: Yeah, we'll -- we will clear
13 -- we will update it and correct it as indicated.

14 MS. O'TOOLE: But it's -- but setting
15 that out, I mean, there are hundreds of names given
16 the short amount of time we have between now and
17 briefing, and that this potentially impacts many of
18 the studies that issue in this hearing. We would
19 request that those names to be set out in a separate
20 column as well.

21 A.L.J. LEARY: I'm not sure what
22 you're asking for, but I'm not getting the sense that
23 this is hundreds of names.

24 MS. O'TOOLE: I'm talking about the
25 handful of people like Mr. Fry that Mr. Woodcock has

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2 testified about, but has been unable to identify.

3 A.L.J. LEARY: So you need to identify
4 those --

5 MS. O'TOOLE: Thank you, Your Honor.

6 A.L.J. LEARY: -- in a confidential,
7 but I'm -- I'm thinking that's what you're intended
8 to do anyway.

9 MR. DAX: Yeah.

10 A.L.J. LEARY: I mean, I'm --

11 MR. DAX: I think she wants an
12 amendment --

13 A.L.J. LEARY: -- I'm looking at Mr.
14 Miller. He is like --

15 MR. MILLER: That's fine.

16 A.L.J. LEARY: Yeah. He's --

17 MR. WISNIEWSKI: But, Your Honor, I
18 don't -- I don't think I agree that should be
19 confidential. If there is no negotiation, there is
20 not -- no -- no interest to protect.

21 MR. DAX: No, there will -- there will
22 be a pub --

23 MR. WISNIEWSKI: We're simply looking
24 for clarity in the record of --

25 MR. DAX: There will be a public list

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2 that says participating or non-participating. That
3 will be the public list.

4 male: So then I think the question
5 will be --

6 MR. WISNIEWSKI: And -- and -- and
7 what -- I think what Ms. O'Toole and what -- also I
8 am asking for Mr. Sharkey's behalf is a list -- a
9 list of the specific landowners who have previously
10 been characterized as in-discussion when, in fact,
11 there was no discussion. And I don't --

12 A.L.J. LEARY: I think that's doable
13 as a part of this exercise.

14 MS. O'TOOLE: Thank you.

15 A.L.J. LEARY: I just don't want that
16 to be public. I just -- I want to protect the people
17 who are in-negotiations, it's their business.

18 MR. WISNIEWSKI: And then --

19 A.L.J. LEARY: Do you follow me?

20 MS. O'TOOLE: But --

21 MR. WISNIEWSKI: Your -- Your Honor, I
22 understand and -- and my point is that, you know, say
23 there is only 5 of these people, they would be
24 disclosed as there being no negotiation. It's a
25 correction. So there are -- because there's no

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2 actual negotiation, it's just C.W.E. reaching out to
3 that party. I don't think there's any actual
4 interest to protect.

5 A.L.J. LEARY: But they're -- they're
6 going to be listed as non-participating. You want
7 something further than that? And maybe an asterisks
8 that says these were incorrectly identified
9 previously?

10 MR. WISNIEWSKI: Exactly.

11 MR. DAX: They -- they can compare the
12 list to determine that.

13 MS. O'TOOLE: Well --

14 MR. WISNIEWSKI: But the burden --

15 A.L.J. LEARY: They didn't -- no, no,
16 no.

17 MR. WISNIEWSKI: An asterisks would be
18 fine, Your Honor, something that --

19 A.L.J. LEARY: Yeah, just --

20 MR. WISNIEWSKI: -- marked to those 4
21 or 5 will be not marked.

22 A.L.J. LEARY: This is a -- this is a
23 new non-participating, yeah. Thank you, Mr. Miller.

24 A.L.J. SHERMAN: Mr. Miller can do it.

25 A.L.J. LEARY: Okay. Let's go on, I'm

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2 going to ask if you still have a pending question,
3 Ms. O'Toole --

4 MS. O'TOOLE: I do.

5 A.L.J. LEARY: -- for Mr. Woodcock?

6 MS. O'TOOLE: I'm waiting on an answer
7 to that question.

8 THE WITNESS: Yeah. Let's -- we start
9 over. Repeat the question.

10 BY MS. O'TOOLE: (Cont'g.)

11 Q. Okay. So the question was, was
12 the information that you provided to the Canisteo
13 Wind's noise consultants which include -- did it
14 include as participating property owners, people who
15 are only under negotiation?

16 A. Yeah. We used the publicly --
17 the public status. Correct.

18 A.L.J. LEARY: What's that mean,
19 public status?

20 MS. O'TOOLE: No.

21 THE WITNESS: Well, the people in
22 negotiations were considered as participating.

23 BY MS. O'TOOLE: (Cont'g.)

24 Q. For the purposes of the noise
25 study, correct?

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2 A. Yeah.

3 Q. So it is possible that to follow-
4 up that question, that there are people who are
5 characterized as participating who negotiations fell
6 through with?

7 A. It's possible.

8 MS. O'TOOLE: Okay. I have no further
9 questions of this witness, Your Honor.

10 A.L.J. LEARY: Anyone else have
11 questions for this witness on cross? Ms. Senlet and
12 Mr. Dax, would you like to re-direct?

13 MS. SENLET: We would like to. Can we
14 go off? Can we talk to the witness very briefly,
15 Your Honor?

16 A.L.J. LEARY: You just had about 20
17 minutes to talk to the witness. Sorry.

18 MS. SENLET: Your Honor, we were -- we
19 were still waiting for the questions to be finalized
20 with the cross, it wouldn't take too long. It
21 wouldn't take too long.

22 MS. O'TOOLE: Your Honor, we would
23 object to this request as it sounds like they'd like
24 to speak to the witness about what questions they are
25 going --

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2 MS. SENLET: Confer with our witness
3 in terms of whether we need to do more clarification,
4 Your Honor, that's the -- that's the objective.

5 A.L.J. LEARY: You can decide that.
6 Decide that with Mr. Dax. I mean --

7 MR. DAX: Other -- every --

8 A.L.J. LEARY: Everybody else, okay.

9 MR. DAX: -- every other person --

10 A.L.J. LEARY: Here's what -- we need
11 to leave here at 1:30 for the site visit.

12 MR. DAX: Can we --

13 A.L.J. LEARY: And we still have
14 witnesses to get through today. Mr. Miller has been
15 very patient.

16 MR. DAX: Mr. Hecklau.

17 A.L.J. LEARY: Mr. Hecklau is here.

18 You know --

19 MR. DAX: Mr. Hecklau really needs to
20 get on today.

21 A.L.J. LEARY: I -- I understand. And
22 we really need to get out at the site visit today,
23 too. So --

24 MS. VIGARS: Your Honor, can I address
25 the site visit briefly?

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2 A.L.J. LEARY: Yes.

3 MS. VIGARS: Mr. Davis advises that
4 there are thunderstorms, and high temperatures
5 predicted for today. In contrast, tomorrow is clear,
6 sunny and 74 degrees.

7 A.L.J. LEARY: Okay. Good. Take the
8 break. Please make it fast. Can I ask everyone if
9 you need a break that you hold it very strictly to 3
10 to 5 minutes so that we all get back here --

11 MR. DAX: Okay.

12 A.L.J. LEARY: -- and continue along?
13 So Mr. Woodcock. Okay.

14 (Off the record, 1:23 to 1:33)

15 BY MS. SENLET: (Cont'g.)

16 Q. Mr. Woodcock, if you recall you
17 were asked some questions during your cross-
18 examinations regarding tax parcels, the Hearing
19 Exhibit Number is 7. They are identified as D.M.M.
20 207 on the application lists. Do you recall that?

21 A. Talking about Sharkey 05?

22 Q. No. I'm --

23 A. C.W.E. responses.

24 Q. No. I'm talking about the
25 figures that you looked at which are --

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2 A. Oh, yeah. Yeah.

3 Q. -- identified as Figure 4-4.

4 A. Uh-huh.

5 Q. And they were identified as parts
6 of Hearing Exhibit Number 7 and they are D.M.M. as
7 207.

8 A. Okay.

9 Q. Is that correct?

10 A. Yeah, sounds right.

11 Q. Are those tax marks -- tax parcel
12 maps that you looked at a couple of minutes ago?

13 A. Right.

14 Q. About half an hour ago.

15 A. Figure 4-4 is on this computer.

16 Q. And you were asked some questions
17 regarding those tax marks -- tax maps --

18 A. Yes.

19 Q. -- in conjunction with your
20 response to Mr. Sharkey's I.R. number 10?

21 A. Right.

22 Q. Do you have that I.R. in front of
23 you?

24 A. Yes.

25 Q. And if you recall one of the

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2 questions that you were asked was, whether there are
3 any participating landowners listed on Mr. Sharkey's
4 I.R.s -- I.R. question 10. Who are -- who have lands
5 next to proposed turbine sites, is that correct?

6 A. Yes.

7 Q. And I believe there were a lot of
8 people looking at the map with you at that point, and
9 you identified 1 or 2, but I believe during the break
10 you were able to look at those -- that map a little
11 bit clearly.

12 A. Right. So you know, there's --

13 Q. So if you would like to just --

14 A. -- a lot of parcels on the map and
15 we're just going through it. I apparently missed
16 property that was adjacent to a turbine.

17 Q. Which property will that be, Mr.
18 Woodcock?

19 A. Well, the 2 that are adjacent to
20 turbines are landowner number 2, Lester Farmwald, and
21 landowner number 4, David Herschberger.

22 Q. So you do see Mr. Farmwald on
23 sheet 28 of that map?

24 A. Right. Yes.

25 Q. And his property is located right

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2 next to which turbine?

3 A. Let me just confirm. It was
4 adjacent to turbine 106.

5 Q. How about landowner number 4?

6 A. Mr. Herschberger.

7 Q. And just let us know which sheet
8 you're at.

9 A. That is sheet 28. Sorry, that
10 may not be right. Well, that is sheet 28, the
11 turbine number is obscured. Let me find them on
12 another sheet. Also, on sheet 32 and it's adjacent
13 to turbine 116.

14 Q. Thank you, Mr. Woodcock.

15 MS. SENLET: That's it, Your Honor.

16 A.L.J. SHERMAN: Just a point of
17 clarification. Is that a correction that landowner 8
18 is not adjacent?

19 THE WITNESS: Let me confirm.

20 MS. SENLET: Yeah.

21 MS. O'TOOLE: Can I have one re-re-
22 direct, Your Honor?

23 THE WITNESS: He is also adjacent to,
24 sorry, that's turbine 28.

25 A.L.J. SHERMAN: That's clear.

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2 THE WITNESS: And that is sheet 19.

3 A.L.J. SHERMAN: Thank you.

4 MS. O'TOOLE: May I ask one question,
5 Your Honor?

6 A.L.J. LEARY: Yes.

7 RE-RE-DIRECT EXAMINATION

8 BY MS. O'TOOLE:

9 Q. Mr. Woodcock, referring to
10 Hearing Exhibit 200, C.W.E. response to Sharkey 10,
11 the 8 landowners identified in exhibit. Were any, to
12 your knowledge, represented by counsel during lease
13 negotiations?

14 A. I would have to go back and look
15 at those exhibits. Like I said, we have 212, I
16 think, signed landowners. I have to go back and look
17 at those agreements and really confirm them.

18 Q. Is your testimony that you don't
19 know or that you just want to confirm?

20 A. I do not know.

21 Q. Who would know?

22 A. Who would know it?

23 Q. Yes.

24 A. Either the landowner or the land
25 agent.

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2 Q. Who at Canisteo Wind would know?

3 A. The -- so we have various land
4 agents. So the land agent that specifically worked
5 with this landowner.

6 Q. Do you know which land agents
7 worked with these landowners depicted on Hearing
8 Exhibit 200?

9 A. Yeah. Again, I think some of
10 these leases are probably from 2013 or 2014 that land
11 agent may not be with Canisteo Wind anymore.

12 Q. With regard to these leases that
13 are -- you said that you have testified, maybe from
14 2013 or 2014, were those leases obtained in
15 conjunction with this project or a previous project?

16 A. As far as I know all of these
17 leases are specific to Canisteo Wind, not from
18 another project. We do have another project in the
19 area, Marsh Hill in the Town of Jasper. I do not
20 believe there is any relationship between these 2.

21 MS. O'TOOLE: Okay. No further
22 questions, Your Honor.

23 A.L.J. LEARY: Anyone else? Okay.
24 Thank you very much, Mr. Woodcock.

25 THE WITNESS: Thank you.

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2 A.L.J. LEARY: Mr. Hecklau. Are we --
3 is -- has everybody have a snack at least of some
4 kind? No? Do you want to take a break and --

5 MR. DAX: I think we need a break
6 before we bring Mr. Hecklau up.

7 A.L.J. LEARY: Okay.

8 MR. DAX: I mean, just for --

9 A.L.J. LEARY: It seems we're going to
10 do the site visit tomorrow. Let's come back 2:30--

11 MR. DAX: Okay.

12 A.L.J. LEARY: -- if possible.

13 MS. SENLET: Thank you, Your Honor.

14

15 (Off the record, 1:40 to 2:36)

16 A.L.J. LEARY: On the record. Let's
17 see. Is it Mr. Hecklau or Dr. Hecklau?

18 MR. HECKLAU: Mister please.

19 A.L.J. LEARY: Mr. Hecklau --

20 MR. HECKLAU: Yes.

21 A.L.J. LEARY: -- would you raise --
22 and am I saying your name correctly, Hecklau?

23 MR. HECKLAU: Yes, you got it
24 perfectly, thank you.

25 A.L.J. LEARY: Okay. Raise your right

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2 hand. Do you swear that the testimony you're about
3 to give is the truth and the whole truth?

4 MR. HECKLAU: I do.

5 WITNESS; JOHN HECKLAU; Sworn.

6 A.L.J. LEARY: Thank you. Would you
7 please state your name and your affiliation for the
8 record?

9 THE WITNESS: (Clear throat) Excuse
10 me. My name is John Hecklau. I'm a Principal with
11 Environmental Design and Research or E.D.R.

12 A.L.J. LEARY: Mr. Dax?

13 MR. DAX: Okay. Thank you.

14 DIRECT EXAMINATION

15 BY MR. DAX:

16 Q. Mr. Hecklau, together with Mr.
17 Perkins, were you responsible for the V.I.A. that was
18 filed with the application?

19 A. Yes, I was.

20 Q. And I apologize, Visual Impact
21 Assessment. And that's part of the original
22 application, so it's part of Hearing Exhibit 1 for
23 the record. And were you also responsible for the
24 Hearing Exhibit 24 Revision 1 that was filed in
25 January of this year that's part of exhibit hearing -

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2 - Hearing Exhibit 2?

3 A. Yes.

4 Q. And were you also responsible for
5 Exhibit 24 Rev 2 and its appendices including a
6 revised V.I.A. that was filed in May of -- of this
7 year?

8 A. Yes.

9 Q. And that's part of exhibit --
10 Hearing Exhibit 7. And did you, with Mr. Perkins,
11 pre-file prepared rebuttal testimony?

12 A. I did.

13 Q. And do you have a copy of that in
14 front of you?

15 A. I do.

16 Q. And did you make corrections to
17 that testimony?

18 A. Yes, I did.

19 MR. DAX: Your Honor, we -- we
20 circulated those corrections over the weekend. Would
21 you like me to take through the corrections?

22 A.L.J. LEARY: Unless they're
23 substantive.

24 MR. DAX: There are several ones that
25 are substantive.

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2 A.L.J. LEARY: Give me an example of
3 that.

4 MR. DAX: There are two that I would
5 characterize as substantive and they are -- on Page
6 23 at Lines 13 through 15 there is a correction made.
7 Do you have that correction in front of you, Mr.
8 Hecklau?

9 THE WITNESS: I do.

10 BY MR. DAX: (Cont'g.)

11 Q. Would you explain what the
12 correction is?

13 A.L.J. LEARY: Page 13?

14 MR. DAX: Page 23.

15 A.L.J. LEARY: I'm sorry, Line 13.

16 MR. DAX: Line 13.

17 A.L.J. LEARY: Got it.

18 BY MR. DAX: (Cont'g.)

19 Q. What -- why don't you read the
20 text as it was and as it is corrected?

21 A. Sure. So Line 13 starts only 5
22 of the selective viewpoints and then in parenthesis,
23 "including the ones Dr. Palmer chose to focus on,"
24 close parenthesis, received average contrast
25 readings, et cetera. The correction is simply

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2 crossing out the parenthetical.

3 Q. So that you're no longer -- it no
4 longer includes the parenthetical including the ones
5 Dr. Palmer chose to focus on, is that correct?

6 A. That's correct.

7 Q. And on Page 25 is the other one
8 that I would characterize as substantive. Would you
9 turn to Page 25 and look at the correction in Lines 7
10 through 8 and explain what that is?

11 A. Sure. So 7 through 8 is
12 referring to a landscape similarity zone or zones
13 within the study area and Line 7 starts, identify
14 landscape similarity zones and then with -- within
15 parentheses, it said, "residential/agricultural."

16 A.L.J. LEARY: It says rural
17 residential/ agricultural.

18 THE WITNESS: I'm sorry. Yes, ma'am,
19 you're right. And in reality that's not one of the
20 L.S.Z.s or Landscape Similarity Zones we used in this
21 study. So we crossed that out and replaced it with
22 the word -- with the words rural valley and rural
23 upland to correctly indicate the landscape similarity
24 zones we're referring to.

25 BY MR. DAX: (Cont'g.)

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2 Q. And with those corrections and
3 the other minor corrections in this corrected
4 testimony, would you -- if I were to ask you each of
5 the questions that is set forth in this document,
6 would your answers be the same as -- as given in the
7 document?

8 A. Yes, sir.

9 Q. And you affirm that those answers
10 are truthful and accurate?

11 A. Yes.

12 Q. Now, with your rebuttal
13 testimony, were there exhibits filed?

14 A. They were.

15 Q. And I have exhibits -- Hearing
16 Exhibits 29 through to 31 and are they identified in
17 the testimony?

18 A. They are identified in our
19 testimony as EDR-01, EDR-02 and EDR-03.

20 Q. The contents are described, what
21 I mean by identified are the --

22 A. Oh.

23 Q. -- are the nature in the contents
24 --

25 A. Yes, sir.

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2 Q. -- of the exhibits identified?

3 A. Yes, they are.

4 Q. And are they -- did they -- are
5 they truthful and accurate?

6 A. Yes.

7 Q. And you adopt them as your
8 exhibits?

9 A. I do.

10 MR. DAX: Your Honor, I ask that those
11 -- the testimony and the exhibits be moved into
12 evidence?

13 A.L.J. LEARY: Any objections? Okay.
14 So admitted.

15

16

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NEW YORK STATE BOARD ON ELECTRIC
GENERATION SITING AND THE ENVIRONMENT

Application of Canisteo Wind Energy, LLC for a Certificate
of Environmental Compatibility and Public Need Pursuant
to Article 10 for Construction of a Wind Project Located in
Steuben County.

REBUTTAL TESTIMONY OF
GORDON PERKINS
SENIOR PROJECT MANAGER/VISUALIZATION SPECIALIST
&
JOHN D. HECKLAU
PRINCIPAL, ENVIRONMENTAL SERVICES

ENVIRONMENTAL DESIGN & RESEARCH,
LANDSCAPE, ARCHITECTURE, ENGINEERING
& ENVIRONMENTAL SERVICES, D.P.C.
217 MONTGOMERY STREET, SUITE 1000
SYRACUSE, NEW YORK, 13202

1 **Q: Please state your names, employer, and business address.**

2 A: Gordon W. Perkins and John D. Hecklau, Environmental Design &
3 Research, Landscape, Architecture, Engineering & Environmental
4 Services, D.P.C. (EDR), 217 Montgomery Street, Suite 1000, Syracuse, NY
5 13202-1942.

6 **Q: Did you file pre-filed testimony in this matter, which contained your**
7 **credentials**

8 A: Yes. Please see the pre-filed testimony that was filed with the Application.

9 **Q: What is the scope of your rebuttal testimony in this proceeding?**

10 A: Our testimony is being submitted to respond to the direct testimony
11 provided by James F. Palmer, of T.J. Boyle Associates, and Jessica Lemay,
12 of Citizens for Maintaining Our Rural Environment (CMORE), in regard to
13 the Visual Impact Assessment (VIA).

14 **Q: What is your experience conducting visual impact assessments for**
15 **wind power projects in New York State and elsewhere?**

16 A: EDR has conducted visual impact assessments for a wide variety of
17 infrastructure projects for over 30 years. The firm has been conducting
18 VIAs for utility-scale wind projects since 1999. Between us, we have had
19 a role in the completion of approximately 35 visual assessments for
20 proposed wind farms in New York State. We have also completed visual
21 assessments for wind projects though out the United States including the

Case No. 16-F-0205 Rebuttal Testimony GORDON PERKINS & JOHN
HECKLAU

1 Outer Continental Shelf, Pennsylvania, North Carolina, New Hampshire,
2 and Ohio. Specific information regarding our experience on these projects
3 is available in our curriculum vitae filed with the Canisteo Wind
4 Application.

5 **Q: What is the purpose of this Testimony?**

6 A: The purpose of our testimony is to rebut portions of the testimony prepared
7 by Dr. Palmer and Ms. Lemay regarding his findings associated with the
8 VIA submitted as a part of the Article 10 Application for the Canisteo Wind
9 Project.

10 **Q. Dr. Palmer raises several concerns regarding the VIA. Do you agree**
11 **with Dr. Palmer's opinion that the viewshed analysis included in**
12 **CWE's VIA is not sufficient for the Siting Board to make the necessary**
13 **findings and determinations required by PSL 168?**

14 A. No. The purpose of a viewshed map, consistent with the requirements of 16
15 CRR-NY 1001.24, is to identify "areas of project visibility within the
16 facility study area". The viewshed mapping prepared as part of the VIA for
17 the Canisteo Wind Project fully complies with the Article 10 regulations
18 and the methodology outlined in the Project's Preliminary Scoping
19 Statement (PSS) and Visual Impact Assessment Protocol (VAIP). To our
20 knowledge, it is consistent with the methodology and mapping format used

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1 in all of the other viewshed analyses prepared and submitted to the Siting
2 Board in Article 10 applications filed to date. As part of the Canisteo
3 Project's Article 10 Application, the analysis was found to be complete, and
4 includes the same type of information provided in another case (Cassadaga
5 [Case No. 14-F-0490]) where the Siting Board has already rendered an
6 opinion regarding the visual impact of a wind project, and in two other cases
7 where the Hearing Examiners have been able to issue a Recommended
8 Decision (Eight Point [Case No. 16-00256 and Baron Winds [Case Number
9 15-F-0122]).

10 Q: **Have you reviewed *The Creation and Interpretation of Viewsheds***
11 ***Divided into Distance Zones and its Application to Canisteo Wind***
12 **(Exhibit JP-02) authored by Dr. Palmer?**

13 A. Yes. In this document, Dr. Palmer present an alternate approach to viewshed
14 analysis that he believes offers advantages over the "traditional viewshed
15 analysis" included in CWE's VIA and other Article 10 VIAs submitted to
16 date. This approach is not necessary to meet the requirements of a viewshed
17 analysis as set forth in 16 CRR-NY 1001.24(b). These regulations require
18 that an applicant include the delineated distance zones on a viewshed map
19 along with "Visually-sensitive sites, cultural and historical resources,
20 representative viewpoints, photograph locations, and public vantage points

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1 within the viewshed study area...” The purpose of this requirement is to
2 allow determination of potential project visibility from these specific
3 locations. The viewshed maps included in the VIA prepared for the Canisteo
4 Wind Project provides the information necessary to make this assessment.
5 Along with identifying visibility or lack of visibility relative to these
6 resources, the maps also indicate whether that visibility is possible under
7 daytime or nighttime conditions, the number of turbines potentially visible,
8 and the influence of vegetation and structures on turbine visibility.

9 **Q. Dr. Palmer suggests that the viewshed maps included in the VIA are**
10 **flawed because they do not consider “visual distinction”, as required**
11 **by the Article 10 regulations. Do you agree?**

12 A. No. As described in Exhibit JP-02, it appears that, Dr. Palmer interprets
13 “visibility distinction” to mean an evaluation of the potential visibility of
14 various portions of individual turbines. We, and apparently all other Article
15 10 applicants to date, interpret this term to mean a distinction between areas
16 where visibility of a proposed project is either available or not available
17 within the visual study area. This is clearly indicated on the viewshed maps
18 included in the VIA prepared for the Canisteo Wind Project.

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1 **Q. Dr. Palmer also suggests that the distance zones defined in CWE’s VIA**
2 **are “not adequate for characterizing the visibility of large wind**
3 **turbines”. Do you agree with this assertion?**

4 A. No. As stated in the VIA, the distance zones (foreground, middle ground,
5 and background) shown on the Project viewshed maps in the CWE VIA are
6 consistent in size with those used in a variety of agency-developed visual
7 assessment methodologies, as indicated in a listing of agency recommended
8 distance zones presented as Exhibit __ (EDR-01). The distance zone break-
9 down used in the CWE viewshed analysis is also consistent with
10 recommendations provided in *A Visual Impact Assessment Process for*
11 *Wind Energy Projects*, published by the Clean Energy States Alliance
12 (Vissering, 2011). This guide, which was reviewed and contributed to by
13 multiple visual professionals (including Dr. Palmer), was developed
14 specifically for the assessment of wind projects, and recommends use of the
15 same distance zone terminology (foreground, middle ground, and
16 background) and distances (0-0.5 mile, 0.5-4.0 miles and >4.0 miles) used
17 in the Canisteo VIA.

18 **Q. Dr. Palmer suggests the following, “The Applicant’s VIA only shows**
19 **buffer or boundary lines at specified distances from the**
20 **project wind turbines. The end result is a map that purports to show**

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1 **as many as 81 turbines being visible in the foreground distance zone**
2 **just 11 north of Turbine 31. This absurd result indicates there is an**
3 **error in the analysis--it is physically impossible for that many turbines**
4 **to be located in a viewer's foreground.” How do you respond to this**
5 **assertion?**

6 A. The VIA does not suggest that as many as 81 foreground turbines can be
7 seen from any single location within the visual study area. Rather, the
8 analysis suggests that a total of 81-122 turbines will be potentially visible
9 from a location which may also have a view of one or more foreground
10 turbines. The foreground distance zone identifies any location in which a
11 foreground view of one or more Project turbines is theoretically
12 possible. As stated in Section 1 of the VIA, one purpose of the VIA is to
13 “Evaluate potential Project visibility within the study area.” The viewshed
14 maps accomplish this by indicating how many turbines are potentially
15 visible from any location within the study area (with a color overlay) and
16 general distance to the nearest turbine (with distance zone boundary lines).

17 **Q. What distance zones does Dr. Palmer recommend and what is your**
18 **expert opinion on the application of these distance zones?**

19 A. Dr. Palmer recommends defining distance zones as: Immediate Foreground
20 (0 to 0.5 mile), Foreground (0.5 to 2.0 Miles), Near-Midground (2 to 5

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1 miles), Far-Midground (5-10 miles), and Background (10-20 miles).

2 Although different terminology is used, each of these distances within 10
3 miles are represented in the Canisteo VIA. However, we believe the
4 inclusion of a distance zone that extends from 10-20 miles, is without merit.

5 In our experience, wind projects viewed at distances over 10 miles result in
6 minimal visual impact. Although under certain conditions they can easily
7 be seen at such distances, their visual prominence and contrast with the
8 landscape are greatly reduced. Based on our experience, defining and
9 addressing visibility from such a distance zone in the VIA would likely
10 result in an overall reduction in impacts due to the fact that views beyond
11 10 miles typically receive very low contrast ratings. We have found this to
12 be the case with offshore projects where views closer than 10 miles to shore
13 are generally unavailable.

14 It is worth noting that the study referenced by Dr. Palmer (Sullivan, 2012)
15 in support of his classification of distance zones is out to 20 miles is titled
16 *Wind Turbine Visibility and Visual Impact Threshold Distances in Western*
17 *Landscapes*. As indicated by the title, this study is applicable to western
18 landscapes, where atmospheric conditions, vegetation patterns, terrain, and
19 distinct lack of screening elements often result in longer distance visibility.

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1 The distance zones utilized in the VIA for the Canisteo Wind Project are
2 appropriate for projects in the Southern Tier of New York State.

3 **Q. Dr. Palmer indicates that the definition of distance zones should be**
4 **adjusted to reflect the greater potential visibility of wind turbines. Do**
5 **you agree?**

6 A. Dr. Palmer's emphasis on the "visible characteristics of wind turbines"
7 when defining distance zones is not particularly relevant. As indicated in
8 Section 3.4 of the VIA, the definition of distance zones relates more to the
9 visibility and character of existing features of the landscape than the nature
10 of the proposed project. As an example, the background distance zone is
11 defined in the VIA as follows:

12 *Background: Over 4.0 miles. The background defines the broader*
13 *regional landscape within which a view occurs. Within this distance*
14 *zone, the landscape has been simplified; only broad landforms are*
15 *discernable, and atmospheric conditions often render the landscape an*
16 *overall bluish color. Texture has generally disappeared and color has*
17 *flattened, but large patterns of vegetation are discernable. Silhouettes*
18 *of one land mass set against another and against the skyline or horizon*
19 *are the dominant visual characteristics in the background. The*
20 *background contributes to scenic quality by providing a softened*

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1 *backdrop for foreground and mid-ground features, an attractive vista,*
2 *or a distant focal point.*

3 This definition is relevant and appropriate, regardless of the type of project
4 being evaluated. While the nature of a proposed project should certainly be
5 considered when determining a project's visual study area (e.g. extending
6 the study area from 5 to 10 miles for wind projects), the distance zones
7 (foreground, middle ground and background) have more to do with the
8 existing visual environment within these zones than with the scale of project
9 components.

10 **Q. Regarding viewshed analysis, in his testimony, Dr. Palmer states the**
11 **following, "Setting minimum visibility to 10 meters is important**
12 **because the practice of using the "highest elevation of facility structures**
13 **to calculate visibility does not assure that a sufficient amount of the tip**
14 **is visible to be recognized."**

15 **A.** We disagree. The tip of the blade represents the maximum achievable
16 height of any given wind turbine in the proposed array. Evaluation of
17 potential visibility at this height allows us to determine the maximum area
18 of potential effect, and is the standard approach used in visual impact
19 assessment. Furthermore, 16 CRR-NY 1001.24(b)(1) clearly states, "The
20 viewshed maps shall provide an indication of areas of potential visibility

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1 based on topography and vegetation and the **highest elevation of facility**
2 **structures.**” (emphasis added). This analysis is then used to inform
3 subsequent analyses performed in the VIA and allows these analyses to
4 focus on resources with potential visibility. Rather than misrepresenting
5 Project visibility as Dr. Palmer asserts, the maximum height approach
6 provides a conservative and inclusive analysis. Once the maximum area of
7 visibility was established, a second viewshed analysis was conducted that
8 considers the height of the FAA light in order to determine areas in which
9 nighttime visibility of the aviation obstruction lights may be possible. This
10 second analysis serves a dual purpose, in that it can also be used (and was
11 used during field review) to determine areas in which there would likely be
12 visibility of the turbine blades and nacelle.

13 Dr. Palmer justifies his proposed approach by stating that “Visual impact
14 intensity increases as more of the turbine becomes visible”. While this
15 statement is generally true, it completely ignores the sensitivity of the
16 viewer, landscape setting, and the backdrop against which the turbine is
17 viewed. Dr. Palmer is suggesting the use of viewshed mapping as a means
18 of evaluating visual impact, rather than just potential project visibility.
19 Typically, and as is the case in the Project VIA, viewshed analysis is a first
20 step in determining where subsequent analyses (e.g., field review,

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1 representative viewpoint selection, and panel evaluation) should focus to
2 characterize a project's visual impact. Visual impact is not based on
3 visibility alone.

4 **Q. Dr. Palmer suggests that the rating evaluation results provided in the**
5 **VIA are “not meaningful” and “...do not provide the Siting Board with**
6 **information sufficient to quantify the visual impacts of the project.”**
7 **How do you respond?**

8 A. EDR disagrees with this assertion. The evaluation process conducted by
9 EDR is entirely consistent with the requirements of the Article 10
10 regulations, and has been used as the basis for decision making on dozens
11 of wind projects in the Northeastern U.S. The form completed by the rating
12 panel provides a sampling of professional opinions and comments regarding
13 the visual character of the Project and it provides distinct and easily
14 interpreted results in a quantifiable matrix relating to potential visual effects
15 on a variety of LSZs and viewer groups found within the visual study area.
16 However, the rating panel results are not the only metric used in determining
17 potential visual impacts. The VIA uses the results of the viewshed analysis,
18 field review, analysis of visibility from visually sensitive resources (VSRs),
19 and the visual simulations, in concert with the rating panel results, to make
20 visual impact determinations.

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1 **Q. Dr. Palmer is critical of the visual impact assessment methodology used**
2 **in the VIA and the way it differs from the methodology utilized by the**
3 **Bureau of Land Management (BLM). How do you respond?**

4 EDR's rating method was developed based on several established visual
5 assessment methods, including the BLM methodology. Our early VIA's
6 utilized the U.S. Army Corps of Engineers, Visual Resource Assessment
7 Procedure (VRAP) (Smardon, et. al, 1988). Because this methodology
8 proved cumbersome, we developed a simplified version of the VRAP,
9 followed by a modified version of the BLM methodology. Similarities and
10 differences between the BLM methodology and the methodology used by
11 EDR, and the reasons we prefer the latter, are outlined below:

- 12 • The BLM methodology does not use quantitative scores in the visual
13 contrast rating process. EDR finds that such scores are helpful in
14 determining average contrast ratings for individual viewpoints. The BLM
15 system is qualitative, which makes it difficult to average multiple scores
16 accurately.
- 17 • The BLM methodology requires on-site evaluation of project contrast from
18 selected viewpoints in the field. We believe this is unnecessary, as various
19 materials are made available to the rating panel to provide additional
20 viewpoint information and context, including panorama/context photos,

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- 1 maps, viewpoint information and Google Earth files. This material allows
2 the panel members to “tour“ the site and understand the context of each
3 view where the project is shown.
- 4 • The four visual contrast rating categories used by the BLM (None, Weak,
5 Moderate, and Strong) are roughly equivalent to the five categories used by
6 EDR (Insignificant, Minor, Moderate, Appreciable, and Strong).
 - 7 • The BLM form requires that visual contrast be evaluated in terms of line,
8 form, color, and texture. Although not explicitly stated on the form, the
9 instructions EDR provides to the rating panel indicate that these same
10 factors should be considered, along with a variety of other factors that
11 influence visual contrast/impact. These are consistent with other factors to
12 be considered, as outlined in the BLM Manual (Manual 8431).
 - 13 • Separate from the BLM’s Visual Contrast Rating methodology, the BLM
14 also has a Visual Resources Inventory process (Manual H-8410-1). This
15 process looks at scenic quality and public use to determine an area’s VRM
16 classification and associated sensitivity to visual change. EDR’s rating form
17 provides an opportunity for evaluation of existing scenic quality. In
18 addition, EDR’s visual impact assessment process defines LSZs to
19 characterize scenic quality and viewer activity within various portions of a

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- 1 visual study area. Definition of LSZs within a study area is a requirement
2 of the Article 10 regulations.
- 3 • The factors utilized by the BLM in selecting key observation points (KOPs)
4 for the preparation of visual simulations are very similar to the viewpoint
5 selection criteria used by EDR.
 - 6 • The landscape features considered on the BLM rating form
7 (landform/water, vegetation, and structures) are similar to, but less
8 comprehensive than, those considered in EDR's evaluation (landform,
9 vegetation, water, sky, land use, and viewer activity).
 - 10 • The BLM Manual includes definitions of various landscape and contrast
11 considerations, which is appropriate given that this methodology is
12 typically conducted by BLM employees that are not design professionals.
13 These definitions are not explicitly provided to EDR's rating panel, as
14 panel members are typically registered landscape architects or other visual
15 professionals familiar with these considerations.
 - 16 • Opportunities for recommended mitigation measures are provided on both
17 the EDR and BLM evaluation forms.
 - 18 • EDR has been using some variation of this rating methodology since 1999.
19 Over this 20-year period, it has proven to be a cost-effective, accurate, and
20 defensible means of evaluating visual impact. This methodology 1)

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1 documents the basis for conclusions regarding visual impact; 2) allows for
2 independent review and replication of the evaluation; and 3) allows a large
3 number of viewpoints to be evaluated in a reasonable amount of time.

4 **Q. Dr. Palmer stated in his testimony that, “panel of raters have not**
5 **presented credentials to indicate that they have expert knowledge of the**
6 **role scenery plays in various viewer activities or the sensitivity of**
7 **different viewer groups.” What are the qualifications of the Rating**
8 **Panel professionals presented in the VIA?**

9 A. In regard to the experience and professional qualifications of members of
10 the rating panel, all are extremely well qualified to evaluate Project-related
11 impacts on scenic quality. All three rating panel members have years of
12 experience conducting such evaluations, all are registered Landscape
13 Architects, and all are very familiar with the landscapes of Central and
14 Western New York. Douglas Brackett is a Registered Landscape Architect
15 with EDR who has over 40 years of professional experience. He has served
16 on rating panels addressing the visual impacts of a variety of projects
17 (including over 10 wind projects since 2004). Kellie Connelly, and Jocelyn
18 Gavitt are independent Registered Landscape Architects who have served
19 on rating panels and conducted visual studies with EDR and for their own
20 firms for over 15 years. Between them, they have evaluated the visual

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1 impact of dozens of energy generation and transmission projects. Both have
2 their own Landscape Architecture practices and both have served as adjunct
3 faculty members in the Landscape Architecture Departments at various
4 universities (including the SUNY College of Environmental Science and
5 Forestry and Rhode Island School of Design). Mr. Brackett grew up in Erie
6 County and has spent his adult/professional life in Madison County, New
7 York. Ms. Connelly was raised in the Western New York area, and Ms.
8 Gavit is a long-time resident of the Town of Cazenovia in Central New
9 York. As such, they are intimately familiar with the landscapes of Central
10 and Western New York, and have all the educational qualifications and
11 experience required to conduct assessments of impacts to scenic quality in
12 rural Upstate New York.

13 **Q. Dr. Palmer is also critical of the fact that the rating panel members did**
14 **not conduct their assessment in the field. How do you respond.**

15 A. Conducting the visual impact evaluation in the field presents a variety of
16 logistical and cost concerns, and as mentioned in a previous response, is not
17 necessary to provide the panel with a full understanding of the visual study
18 area and the specific viewpoints being evaluated. To familiarize them
19 within the site, the rating panel was provided with landscape context sheets
20 which provided the mapped location of each selected viewpoint on an aerial

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1 photograph and a larger context topographic map, contextual photographs
2 to show areas outside the simulated view, camera elevation, direction of
3 view, LSZ, distance to nearest turbine, and camera and Project information.
4 Viewer position and cone of view at each selected viewpoint were also
5 provided to the rating panel in Google Earth for additional contextual
6 information. This information was provided to give each panel member
7 sufficient information regarding the landscape context and land use
8 associated with each of the evaluated viewpoints. They are also provided
9 with information on the VSRs and viewer groups that may be affected, and
10 a meeting is held with the panel to review each viewpoint (with EDR staff
11 that had been there) and respond to any questions the panel members may
12 have. We believe this eliminates the need for the rating panel members to
13 complete the rating forms in the field.

14 **Q. Dr. Palmer suggests that the number of rating panel members used in**
15 **the evaluation was inadequate. Do you agree?**

16 A. EDR conducts visual evaluations using panels that typically range in size
17 from three to five individuals. In our experience, panels of this size offer the
18 following advantages:

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- 1 1. Panels of this size are adequate to determine project characteristics that
- 2 consistently result in high and low levels of visual contrast in different
- 3 landscape settings.
- 4 2. A representative range of opinions on the visual effect of a project is
- 5 presented (reflecting the variability in perception and preference often
- 6 seen in the larger public).
- 7 3. They generate a manageable data set that can be easily summarized and
- 8 interpreted.

9 Our observations indicate that larger panels do not typically result in
10 substantially different evaluations/scoring, but rather tend to move results
11 toward the middle, reducing the influence of panel members at either end
12 of the scale.

13 **Q. Dr. Palmer provided an example of an alternative sample numerical**
14 **contrast rating (Smardon and Hunter 1983) in his testimony. Can you**
15 **explain the differences in results using this method versus the methods**
16 **employed by EDR?**

17 A. Dr. Palmer applies an alternate scoring method to two of the viewpoints
18 evaluated in the Canisteo VIA (Viewpoints 93 and 184). Although he
19 implies that use of the alternate system would result is a very different
20 outcome, the results are actually quite similar, as outlined below:

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- 1 • Regarding his contrast rating of Viewpoint 93, Dr. Palmer states, “The Total
2 Visual Impact Severity is 34 or “Severe,” which is near the highest possible
3 visual impact”. Using his alternate rating form (Maine DEPLW0541-
4 A2002, Maine DEP, 2003), 36 is the maximum achievable score.
- 5 • EDR’s panel evaluation of the same viewpoint resulted in an average visual
6 contrast rating of 3.5 out of a maximum achievable score of 4.0.
- 7 • Other than the terms used to describe the potential visual contrast, both
8 results suggest that the Project’s visual contrast from this particular
9 viewpoint location is close (within 88 – 94%) to the highest achievable
10 score using either rating method. Additionally, EDR provides each
11 individual rating forms in the VIA so that variability and the perception of
12 individual rating panel members can be understood.
- 13 • Dr. Palmer goes on to say, “The results of this analysis could be generally
14 extended to other Immediate Foreground views where the sweep of a
15 turbine’s blades is visible in the Rural Upland...” There is no evidence
16 presented to indicate that other foreground views will result in a similar
17 contrast rating score. Dr. Palmer demonstrates a bias in making this leap
18 without scientific evidence.
- 19 • In his evaluation, Dr. Palmer includes several quotes from the individual
20 EDR rating panel members to support his conclusion. Ironically these

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1 statements were made in support of the conclusion presented in the Canisteo
2 VIA, reinforcing the fact that Dr. Palmer's method does not result is
3 substantially different results, than EDR's. Had all of the rating panel
4 comments been included in Dr. Palmer's testimony, the full range of panel
5 reaction, and the basis for their somewhat lower scores would have been
6 clear.

7 • Regarding Dr. Palmer's evaluation of Viewpoint 184 from the VIA, he states
8 that, "the resulting resolution is very poor—another indication that this
9 simulation is poorly presented. This simulation is inadequate to make
10 accurate visual contrast judgements because it is impractical to view it at
11 the proper distance and the image resolution is inadequate..." Dr. Palmer
12 appears to have retrieved the visual simulations from the DMM site, which
13 limits the document size. The rating panel performed the ratings on high
14 resolution visual simulations (as stated in 4.2.2 of the VIA) that were more
15 than adequate to decipher project details.

16 • Dr. Palmer's rating results of Viewpoint 184 suggest a rating of 34, or
17 severe. EDR's rating panel results found the impact to be 2.9, or
18 appreciable. Again, Dr. Palmer chooses selected comments from EDR's
19 panel members to emphasize the severity of the impact, ignoring comments
20 that help explain the slightly reduced contrast rating.

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1 **Q. Dr. Palmer indicates that the Canisteo VIA does not make a**
2 **determination as to whether the proposed Project’s visual impact is**
3 **“reasonable”. Do you agree?**

4 A. Dr. Palmer is correct, the Project VIA does not make a determination of the
5 “reasonableness” of the Project’s visual impact. While such an assessment
6 is required by some agencies in other states (e.g., use of the “Quechee
7 Analysis” in Vermont), such a determination is not required under Article
8 10 or any other New York State regulation. The VIA is intended to provide
9 to the Siting Board an objective assessment of Project visibility and visual
10 effect. We understand that it is up to the Siting Board to determine if the
11 Project’s impacts (on visual and other resources) are acceptable.
12 The VIA thoroughly evaluated potential Project visibility from within the
13 visual study area, including visibility from identified VSRs, using viewshed
14 analysis, line-of-sight cross sections, and field review. The appearance of
15 the Project was illustrated in visual simulations from representative open
16 views throughout the study area, and the visual effect was evaluated by an
17 experienced rating panel. The Project’s visual impact was described in the
18 VIA in a viewpoint-by-viewpoint narrative, and in a summary of contrast
19 scores from the rating panel. The completed rating forms from all the panel
20 members are also included as an appendix to provide additional detail. In

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1 sum, this information is in full compliance with the requirements of Article
2 10, and provides the Siting Board with all of the information necessary to
3 understand the visibility and visual impact of the proposed Project and
4 render a decision on whether that impact is acceptable within the context of
5 Article 10..

6 **Q. Dr. Palmer concludes that the Project will “have a major visual impact**
7 **on a large proportion of the study area”. Do you agree?**

8 A. No. Dr. Palmer’s conclusion appears to be based on his evaluation of the
9 two viewpoints that received the highest contrast ratings, and ignores the
10 fact that 1) the viewshed analysis indicates that only 19.2% of the visual
11 study area is likely to have views of the Project, 2) where views are
12 available, Project visibility will be limited to fewer than 10 turbines in most
13 locations, 3) only five of the selected viewpoint simulations (including the
14 ones Dr. Palmer chose to focus on) received average contrast ratings greater
15 than 3 on a scale of 0-4, 4) rating panel scoring and comments on
16 simulations from viewpoints over 4 miles from the nearest turbine (which
17 represents the vast majority of the visual study area) generally indicated
18 insignificant to moderate visual contrast, and 5) the visibility and
19 appearance of wind turbines is not universally considered to be adverse by

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1 the general public. For all of these reasons, we disagree with Dr. Palmer's
2 conclusions.

3 **Q. Dr. Palmer expresses concern that the cumulative impact of multiple**
4 **wind power projects in the Southern Tier of New York State is not**
5 **being adequately addressed. Is this a legitimate concern?**

6 A. Cumulative impact is a legitimate concern, and it is addressed in the
7 Canisteo Wind VIA through viewshed analysis and visual simulations. Dr.
8 Palmer's concern seems to extend beyond the context of this VIA when he
9 states "I am concerned that an impact process tied to the permit approval
10 for individual projects means that this incremental but expansive change is
11 creating a new Rural Industrial Landscape." Although wind farms are by
12 definition power generating facilities, the turbines are not viewed by the
13 majority of people as "industrial" in character. The turbines are clean and
14 sculptural in form and are not perceived as industrial, the way a factory or
15 conventional power plant might be. Although this term is widely used by
16 wind power opponents to imply greater impact, we do not believe it is
17 consistent with the way most people view wind turbines.

18 **Q. Dr. Palmer also expresses concern over the visual impact of the Project**
19 **on Amish receptors within the study area. Were Amish-owned**
20 **properties specially evaluated in this VIA?**

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1 A. The Amish were not identified as a sensitive viewer group in any of the
2 public outreach conducted in support of the VIA, and properties owned or
3 used by a specific religious group are not typically singled-out for
4 evaluation in a VIA. However, Amish land owners within the study area
5 are considered to fall within one of the broader viewer groups identified in
6 the VIA (local residents); their properties generally fall within one of the
7 identified landscape similarity zones (Rural Residential/Agricultural); and
8 views in the vicinity representative properties owned by Amish residents
9 within the study area (e.g., Viewpoints 52 and 197) were evaluated as part
10 of the VIA.

11 **Q. Dr. Palmer suggests that additional analysis of visual impact on the**
12 **Amish community should have been included in the VIA. Do you**
13 **agree?**

14 A. No. As stated above, we consider the Amish to be members of the
15 community within the visual study area. Dr. Palmer's position implies, but
16 provides no evidence, that the Amish are somehow more sensitive to visual
17 impact from the proposed turbines than other viewer groups. This ignores
18 the fact that, despite their rejection of many modern conveniences on
19 religious grounds, the Amish live in the modern world and view features of
20 modern society on a daily basis. They share the road with automobiles, do

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1 business with non-Amish members of the community, and shop at
2 supermarkets and department stores.

3 **Q: Do you have any additional comments regarding testimony the visual**
4 **analysis undertaken for Canisteo Wind Energy?**

5 A: Yes. Jessica Lemay outlines concerns with how the visual simulations were
6 prepared near her residence and business. She believes that “turbines 111
7 and 112 were incorrectly left out of the report”. Additionally, based on
8 public comments made by Ms. Lemay on the DMM for this project, she
9 asserts that Viewpoint 197 from Trip End Brewery was positioned in such
10 a way to intentionally minimize potential turbine visibility. A marked-up
11 photo from the deck of brewery was provided by Ms. Lemay to illustrate
12 her concern (see Exhibit __EDR-02).

13 As the visual experts responsible for the preparation of the Project VIA and
14 the May 24th addendum to VIA, we can assure Ms. Lemay that there has
15 never been any attempt on the part of our professional staff to influence the
16 outcome of the VIA in any manner. As stated in the EDR’s viewpoint
17 selection is based on the following criteria (as stated in Appendix 24a):

18 • They provide open views of proposed turbines or provide
19 representative views of the screening effects of vegetation and/or
20 buildings from selected sites.

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- 1 • They illustrate Project visibility from VSRs identified by local
- 2 stakeholders and state agencies.
- 3 • They illustrate typical views from LSZs where views of the Project
- 4 will be available.
- 5 • They illustrate typical views of the proposed Project that will be
- 6 available to representative viewer/user groups within the visual
- 7 study area.
- 8 • They illustrate typical views of different numbers of turbines, from
- 9 a variety of viewer distances, and under different lighting/sky
- 10 conditions, to illustrate the range of visual change that will occur
- 11 with the Project in place.
- 12 • The photos obtained from the viewpoints display good composition,
- 13 lighting, and exposure.

14 In addition to this approach and in accordance with 16 CRR-NY 1001.24, a
15 letter was sent to municipal representatives and state agencies to solicit
16 input on the identification of sensitive resources. Additionally, in August of
17 2018 a public open house was held to gain additional input from
18 stakeholders regarding the selection of viewpoints for simulations. In fact,
19 this public meeting is what ultimately led to the production of the visual
20 simulation from Trip End Brewery.

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1 While we aim to capture the most open and unobstructed view available
2 from each location, it is also necessary that the viewpoints be publicly
3 accessible. During the fieldwork, the brewery was not open for business,
4 so the field technician took photographs from the most open and accessible
5 location available (the photo from Viewpoint 197 included in the VIA). For
6 this viewpoint EDR prepared a panoramic simulation that showed the nearest
7 proposed turbine and other more distant turbines that would be visible.
8 Other turbines in proximity to this viewpoint were substantially screened by
9 foreground trees and the adjacent brewery building. In response to Ms.
10 Lemay's concerns regarding the simulation from Viewpoint 197, EDR used
11 the photo provided by the commenter (see Exhibit __ (EDR-02)), and
12 prepared a wireframe photo rendering to demonstrate the correct scale and
13 position of the turbines as they would be seen from this location (see Exhibit
14 __ (EDR-03)). This rendering provides an accurate depiction of turbine scale
15 and position in the landscape as would be seen from the brewery deck.

16 **Q. Does this conclude your testimony at this time?**

17 A. Yes.

18 **References**

19 Smardon, R.C., J.F. Palmer, A. Knopf, K. Grinde, J.E. Henderson and L.D.
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1		INDEX OF EXHIBITS
2		
3	EDR-01	Agency Guidance for Distance Zones
4		
5	EDR-02	Jessica Lemay Rough Edit
6		
7	EDR-03	EDR Wireframe Rendering

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2 MR. DAX: So the witness is available.

3 A.L.J. LEARY: I just have a question,
4 Mr. Dax, and for the witness on the correction of
5 Page 25, with the revision of the rural
6 residential/agricultural to the rural valley, did you
7 say?

8 THE WITNESS: Yes, ma'am, rural valley
9 and rural upland, two -- two different landscape
10 similarity zones that's referring to.

11 A.L.J. LEARY: And I -- I'm just not
12 getting the significance of this. Is it just the
13 wrong words for the category --

14 THE WITNESS: It is.

15 A.L.J. LEARY: -- it doesn't affect
16 the outcome?

17 THE WITNESS: That's correct. It just
18 makes the testimony consistent with the terminology
19 that was used in the visual impact assessment.

20 A.L.J. LEARY: Perfect. Okay, thank
21 you. So who has cross examination for this witness?

22 MR. WISNIEWSKI: Mr. Sharkey does,
23 Your Honor.

24 A.L.J. LEARY: Okay. Proceed.

25 MR. WISNIEWSKI: And I'll be speaking

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2 on his behalf.

3 CROSS EXAMINATION

4 BY MR. WISNIEWSKI: (Cont'g.)

5 Q. Good afternoon, Mr. Hecklau.

6 A. Good afternoon.

7 Q. Thank you for being here all
8 week. Mr. Hecklau, what were your responsibilities
9 in preparing the Canisteo Wind Visual Impact
10 Assessment?

11 A. I basic -- I basically oversaw
12 the production of the document, provided some QAQC
13 and also interacted with the team that was doing the
14 individual analyses on a regular basis.

15 Q. And can you define QAQC for the
16 record?

17 A. I'm sorry. That would be
18 reviewing for accuracy and proper presentation,
19 quality assurance basically.

20 Q. And how large was the team that
21 was working on the visual impact assessment?

22 A. So it would be myself, several
23 people within our visualization group probably 3 and
24 then the rating panel which was another 3, so maybe 6
25 or 7 people.

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2 Q. Thank you. Mr. Hecklau, what
3 were Mr. Perkins' responsibilities in preparing the
4 Canisteo Wind Visual Impact Assessment?

5 A. Gordon oversees our visualization
6 group and so he was directly responsible for
7 orchestrating and overseeing the technical analyses
8 that were performed for the project.

9 Q. And to be clear Mr. Perkins is
10 not here today?

11 A. Unfortunately, he is on vacation
12 this week.

13 Q. But you are qualified to answer
14 questions about anything contained in either the
15 testimony or your visual impact report?

16 A. I'll do my best.

17 Q. Thank you. I believe you've
18 already said this, but I'll ask it again. What does
19 E.D.R. stand for?

20 A. Environmental Design and
21 Research.

22 Q. Has E.D.R. ever conducted post-
23 construction monitoring or evaluation to compare
24 predicted visual impact with the actual visual impact
25 of a project?

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2 A. Informally, we oftentimes do go
3 back and -- and verify the sort of the accuracy of
4 our simulations by comparing them to photographs of a
5 built project and we're actually involved in a
6 project with SUNY College of Environmental Science &
7 Forestry right now doing just that on the
8 Hardscrabble Wind Project in Herkimer County and also
9 on the Block Island Wind Project offshore of Block
10 Island, Rhode Island -- Rhode Island.

11 Q. And did -- have you come to any
12 conclusions based on --

13 A. I mean, the conclusions that
14 we've done --

15 Q. -- those ongoing --

16 A. -- excuse me, the -- the
17 comparisons we've done in-house have always shown
18 things to be extremely accurate. The work we've done
19 with SUNY E.S.F. at the Hardscrabble project, they
20 had a webinar on this just a week ago and they
21 indicated that the accuracy they characterized as 97
22 percent.

23 Q. Can -- would you please describe
24 the methodology you were using to conduct these
25 informal analyses?

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2 A. The in-house analyses?

3 Q. Correct.

4 A. Basically what it would involve
5 is taking simulations that we've prepared for a given
6 project, going back to the viewpoints that we used
7 where we took the original photographs after the
8 project is built, you know, re-photographing, trying
9 to frame the project and the landscape in a similar
10 context as we could to the original and then just
11 basically doing a side-by-side comparison.

12 A. And is that methodology based on
13 any scientific or academic literature?

14 A. No, it's just sort of a
15 commonsense comparison.

16 Q. Are the results of your informal
17 studies ever published?

18 A. Nothing is published. I think
19 they have been presented in some other hearings, but
20 not in a pub -- not in a publication.

21 Q. Have they been peer reviewed or
22 reviewed by other professionals outside E.D.R.?

23 A. Other than the SUNY E.S.F. study
24 that I just mentioned, no.

25 Q. Mr. Hecklau, how did E.D.R.

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identify the vegetated viewshed in the project area?

A. So the -- the viewshed that was performed in the supplemental submittal, supplemental V.I.A was based on a Lidar analysis, which Mr. Runner earlier talked about a little bit. Lidar is this technology which basically can provide a, we call it a D.S.M., a digital surface model of the earth based on light -- laser light mapping of the earth's surface and so what it includes is -- is not just the ground surface of the earth, but any structure, tree, element that is detectable, you know, by that technology.

Q. And is it your understanding that that information was gathered in 2016?

A. That's correct.

Q. And to your knowledge it has not been updated since then?

A. No, we would have used whatever was the most -- the most current publicly available data available.

Q. Is it possible that the vegetated viewshed side could have changed between 2016 and now?

A. 3 years. I mean, that seems like

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2 any change would be relatively minor, but it's
3 possible.

4 Q. And what leads you to the
5 conclusion that any change will be relatively minor?

6 A. I'm just thinking in terms of how
7 much a tree would grow in 3 years and that's fairly
8 minor. The structures that are being picked up,
9 those likely won't change unless there's a lot of new
10 building going on in the particular area we're
11 talking about. You know, it's not under heavy
12 development pressure or something that would change a
13 lot of the structures that are within the study area.

14 Q. Is it possible that areas of
15 vegetation could have been cleared or burned?

16 A. That is possible.

17 Q. Mr. Hecklau, how did E.D.R. go
18 about classifying the other landscape visibility
19 zones?

20 A. I'm sorry?

21 Q. How did E.D.R. go about classifying
22 the other landscape similarity zones?

23 A. Oh, okay. So when you say other
24 you mean any landscape similarity zone because we --
25 I'm not sure we've have talked about any yet.

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2 Q. I apologize. Other than the
3 vegetated viewshed, were there other landscape
4 similarity areas that you identified for your
5 analysis?

6 A. Okay. So just to clarify from my
7 end, the vegetated viewshed is not a landscape
8 similarity zone. It's basically a visibility
9 analysis. The landscape similarity zones are areas
10 of similar landscape character that we define within
11 the study area and as Dr. Palmer mentioned the other
12 day, they're based on the topography, the vegetative
13 cover, the land use, things of that nature, broad
14 categories that sort of defined the visual character
15 of the landscape.

16 Q. Thank you. And I apologize for
17 being imprecise. I don't have the benefit --

18 A. No problem.

19 Q. -- of having Dr. Palmer with me -
20 - with me here today and I am not a visual impact
21 expert. So please feel free to ask me to clarify if
22 my question makes no sense.

23 A. Sure.

24 Q. Can you please identify the
25 landscape similarity zones that you used within your

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2 visual impact assessment?

3 A. Yes, the ones we defined on this
4 project were referred to as forest, which were those
5 areas that were essentially fully forested with an
6 overstory canopy. We have rural valley and rural
7 upland which were the couple that I mentioned in my
8 correction, which are more agricultural areas either
9 in a upland hilltop setting or in a valley setting.
10 And then I think we had a village/city L.S.Z. and a
11 hamlet L.S.Z. which are more settled areas of the --
12 of the project.

13 Q. And can you please describe the
14 methodology used to classify the similarity zones?

15 A. You know that's -- that's
16 outlined in the V.I.A. and I -- I would rather look
17 at that and --

18 Q. Feel free to refresh your memory.

19 A. Sure. Okay. So this is
20 described on Page 16 of the Visual Impact Assessment
21 under the heading Landscape Similarity Zones. I
22 could read it if you'd like or I could just sort of
23 paraphrase it.

24 Q. You can paraphrase, please.

25 A. So basically it's a -- it's a

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2 geographic information system analysis and it's based
3 on mapped land cover, elevation, proximity to various
4 landscape and land use features. Basically, what we
5 do is we -- we use that G.I.S. derived data to look
6 at different cover types. So forest, it -- it goes
7 through a detail of how did each one. City village
8 L.S.Z. was identified as the area inside or within a
9 thousand feet of the map boundary of the City of
10 Hornell and villages of North Cornell and Canisteo,
11 Alfred, Hanover and Edison. Hamlet L.S.Z. was
12 identified by visual delineation of the developed
13 areas around named Hamlets using aerial photographs.
14 The Forest L.S.Z. was defined as areas identified as
15 deciduous, evergreen, or mixed forest in the USGS
16 2011 National Landcover Dataset and then it says,
17 "finally the all areas remaining unclassified were
18 divided into either the rural valley or rural upland
19 L.S.Z.'s based on elevation. All areas below the
20 median elevation of the study area were classified as
21 rural valley. All areas above that elevation were
22 classified as rural upland."

23 Q. Thank you. Would you agree that
24 the use of distance zones in Visual Impact Assessment
25 helps the group objects based on the distance from an

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2 observer?

3 A. The distance zones, I think, have
4 a couple functions. On the mapping, it can clarify
5 how far a particular location or resource is from a
6 given turbine. It also is used when you describe the
7 view that is available at various distances and in --
8 in the V.I.A. we define foreground, middle ground and
9 background as the distance zones and for each of
10 those there is a definition of what the land -- how
11 the landscape appears within those zones and that's
12 used to -- to help kind of have the viewer understand
13 that there are different -- things look differently
14 at different distances, and also when a project is
15 added to the -- to the view in a simulation, you can
16 -- then accurately characterize it as a foreground,
17 middle ground and background element in the view.

18 Q. So then generally speaking,
19 objects in any given distance zone are presumed to
20 have a similar level of impact or that at least would
21 be different from objects in other distance zones?

22 A. No, I mean we don't really use
23 the distance zones to define impact. It's -- it's
24 more to define the landscape into which an object is
25 being placed when we're doing a simulation.

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2 Q. So then distance zones are really
3 about the -- the distance from an object to the
4 observer?

5 A. Yes. As I said, that -- that
6 helps -- there is a mapping benefit that it has in
7 that regard, but also just to define characteristics
8 of landscape and if you'd like, I could go to the
9 section of the V.I.A. where we -- where we present
10 that.

11 Q. Unless the judges would like to
12 hear it I don't think it's necessary at this point.

13 A. Okay. Fine.

14 Q. Mr. Hecklau, would you agree that
15 all other things being equal, the distance from an
16 observer to a visible wind turbine is directly
17 related to the potential visual impact of the
18 turbine?

19 A. No, not necessarily.

20 Q. So then you would not agree that
21 as a turbine -- that a turbine that is further away
22 from the individual all things being equal would have
23 a lower visual impact than the turbine that is closer
24 to an individual?

25 A. That's too general a statement.

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2 I wouldn't agree with it.

3 Q. Mr. Hecklau, do you understand
4 what all other things being equal means?

5 A. I do, but every turbine is viewed
6 in a different context. So when you say all things
7 being equal, I assume you mean how much of the
8 turbine is visible, how close it is, the
9 characteristics of that determine the view, but what
10 about the context, right. A turbine viewed up close
11 in the setting of a Hamlet may appear very different
12 than a turbine viewed up close in a forest, let's
13 say. The setting is very important and the context
14 of the view goes directly to how much impact that --
15 that view might have.

16 Q. So let's assume identical context
17 and setting, all possible and potential variables are
18 the same, with the only difference being that one
19 turbine is farther away and the other is closer,
20 which one would have a higher visual impact or if you
21 can't answer that, which would be more visible?

22 A. Generally the one closer would be
23 -- would be more visible and would generally have a
24 higher impact, correct.

25 Q. Thank you. Mr. Hecklau, would

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2 you agree that in general, all other things being
3 equal, closer turbines in a foreground distance zone
4 would have a higher visual impact than turbines
5 farther away in the background distance zone or
6 zones?

7 A. Yeah, I think are -- you know,
8 the rating panel results would suggest that that's
9 true.

10 Q. Thank you. So just to be clear,
11 distance zones help us understands the type and
12 degree of visual impact from wind turbines?

13 A. Again, I'm not -- I'm not sure
14 the word distance zones is the same as distance,
15 right. I think the last few questions you asked me
16 had to do with distance and that was -- that was my
17 response in regard to distance zones, I'd mentioned
18 earlier is more of a term used to characterize the
19 landscape and how it appears at different distances.

20 Q. But isn't it true that distance
21 zone comprise of a range of distances?

22 A. Yes, but the reason we include
23 them in the report is -- is not just to present a
24 distance. It's to describe the landscape
25 characteristics as they're viewed within that

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2 distance.

3 Q. Mr. Hecklau, would you agree that
4 all other things being equal, if 2 turbines are
5 equidistant from an observer and the entire rotor
6 sweep of the first turbine is visible that only a
7 small portion of the second turbine is visible, would
8 the first turbine be more visible?

9 A. Would it be more visible?

10 Q. Yes.

11 A. It would be more visible because
12 you'd see more of it, but it wouldn't necessarily
13 have greater visual impact.

14 Q. All other things being equal
15 assuming identical context and setting in every
16 possible way, if there are 2 identical turbines in
17 every way with the exception that 1 is fully visible
18 and 1 is partially visible, which turbine would have
19 a higher visual impact?

20 A. Again, I can't give you a --
21 that's a --- that depends on circumstances. Now,
22 I'll explain. We have, on many occasions, had rating
23 panel members who felt that there was a substantial
24 impact when they saw simply a blade rising above a
25 landform rather than the full nacelle I think the

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2 reasoning being that when you see the full nacelle
3 you fully understand the presence of the turbine and
4 what it's doing, whereas a blade simply rising above
5 the background horizon on a periodic basis from a
6 visual standpoint can look odd. So it's -- that's an
7 example of where it wouldn't necessarily be more
8 visibility equals more visual impact.

9 Q. Mr. Hecklau, have you revert --
10 reviewed any peer reviewed research about how the
11 public perceives the visibility of wind turbines?

12 A. Yes.

13 Q. And in -- would you conclude that
14 that research supports that the public would have a
15 similar reaction as the peer review -- as the review
16 you just described in that it might very well be that
17 in general the public would view only the tiny
18 portion of the tip of 1 visible turbine as having a
19 higher visual impact than the full turbine?

20 MR. DAX: Objection. If counsel has a
21 reference it would be better for him to provide it.
22 If he doesn't have a reference then I object to the
23 question.

24 A.L.J. LEARY: That's --

25 MR. WISNIEWSKI: Your Honor, I didn't

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2 mention the reference, the witness did. I don't know
3 what the reference is.

4 A.L.J. LEARY: Well, ask him that
5 question, what's the reference he's talking about.

6 BY MR. DAX: (Cont'g.)

7 Q. Mr. Hecklau, what is the
8 reference you were just speaking about?

9 A. You asked me if I had ever read
10 it -- reviewed a peer reviewed article regarding
11 public attitudes or public perception on turbines, my
12 answer is yes. I'm not referring to a specific
13 reference.

14 Q. Can you give me any references?

15 A. Well, I can -- I mean, the most
16 recent one that's out is the Department of Energy
17 study which surveyed 1,700 neighbors to wind
18 projects, 250 different wind projects in 24 states
19 and then asked a variety of questions about how
20 people perceived the -- the turbines and it was --
21 the questions were directed towards those living
22 within 5 miles and it broke it down by distances to -
23 - to be more specific than that.

24 Q. And it's your understanding that
25 that study shows that people living at a similar

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2 distance from a turbine, if there were 2 identical
3 turbines in every way, one being fully visible and
4 one being partially visible. Those people would find
5 that the larger turbine -- the more visible turbine
6 has a less of an impact than the partially visible
7 turbine?

8 A. Again, that's not the question
9 you asked me. I mean I -- I -- I am --

10 Q. That is the question I'm asking
11 now.

12 A. Then no, that -- that's not
13 asking people to compare 2 identical turbines at --
14 and -- and -- and explain which one they think has a
15 greater impact. It's more of a survey of people's
16 either acceptance or lack of acceptance of turbines
17 in the landscape.

18 Q. So then is it fair to say, Dr.
19 Hecklau, that in your professional opinion that
20 amount of visibility, the amount of a turbine that is
21 visible is not related to the visual impact of the
22 turbine?

23 A. No, I think it has bearing on it.
24 It absolutely does, but -- but I think it's -- it's
25 too simple to just say that it's always the case one

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2 way or the other.

3 Q. But it is relevant to the
4 determination of visible impact?

5 A. Absolutely.

6 Q. Thank you. Dr. Hecklau, as part
7 of your visual impact assessment, isn't it true that
8 you modeled the visibility of turbine model GE3.6-137
9 with the tip height upraised -- upraised tip height
10 of 592 feet?

11 A. Yes.

12 Q. And did you also use the same
13 model GE3.6-137 turbine for your viewshed mapping and
14 for your visual simulations?

15 A. I believe so or at least the
16 dimensions thereof.

17 Q. And in your visual simulations
18 that depict a turbine on the landscape --

19 A. Uh-huh.

20 Q. -- did you use the model GE3.6-
21 137?

22 A. Yes.

23 Q. And is it fair to say that you
24 used the GE3.6-137 because it represents the tallest
25 turbine under consideration and will therefore have

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2 the largest visual impact?

3 A. Yes.

4 Q. And is it fair to say that a
5 higher power turbine such as the GE4.85.3-158 is
6 another one of the turbines that Canisteo Wind is
7 considering for the project?

8 A. That's my understanding.

9 Q. But is it also true that the
10 model of GE4.8 5.3-158 being proposed as an identical
11 tower height of 592 feet?

12 A. I don't know the exact
13 dimensions, but it's within -- it's within a foot or
14 2 I believe.

15 Q. That's fair enough, I'm not
16 trying to trap you there.

17 A. Okay.

18 A.L.J. SHERMAN: I'm sorry, Counsel,
19 you said tower height?

20 MR. WISNIEWSKI: I'm sorry, not tower
21 height, --

22 A.L.J. SHERMAN: Tip height.

23 MR. WISNIEWSKI: -- let me correct the
24 record, yes.

25 A.L.J. SHERMAN: Thank you. That's --

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2 that's okay.

3 BY MR. WISNIEWSKI: (Cont'g.)

4 Q. Is it fair to say that the
5 turbine models in towers under consideration both the
6 GE485.3-158 and the GE3.6-137 are both have a total
7 height of about 592 feet?

8 A. That's my understanding, yes.

9 Q. So because those 2 turbines
10 models are the same height, they would really both
11 represent an equivalent worst-case scenario for the
12 Visual Impact Assessment, right?

13 A. Yes.

14 Q. Isn't it also true that you
15 modeled shadow flicker impacts for the GE4.85.3-158,
16 but not the GE3.6-137?

17 A. I was not involved in the shadow
18 flicker study, so I can't address that.

19 Q. Do you know which turbine was
20 used in the shadow flicker study?

21 A. I do not.

22 MR. DAX: I think the record reflects
23 that number in one of the exhibits that was discussed
24 this morning with Mr. Runner. I think it's the memo
25 Appendix 24B, I believe, memorandum that was talked

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2 about.

3 A.L.J. LEARY: That he did, you cited
4 Page 10 to that?

5 MR. DAX: Right.

6 A.L.J. LEARY: It's to Mr. Miller,
7 memo to Mr. Miller?

8 MR. DAX: It was a memo from Mr.
9 Runner to Mr. Miller and I think that data is in
10 there.

11 A.L.J. LEARY: Is that correct? I'm
12 asking the witness.

13 MR. DAX: He just said he doesn't
14 know.

15 A.L.J. LEARY: Oh, I'm sorry, he
16 doesn't know, so you're testifying.

17 MR. DAX: I'm -- I'm trying to
18 clarify.

19 A.L.J. LEARY: I'm kidding, I'm
20 kidding for the record. I have 24B.

21 MR. DAX: Yes.

22 A.L.J. LEARY: As that memo?

23 MR. DAX: Yes, I think that has the
24 number that Mr. Wisniewski was asking about. That's
25 -- I'm just trying to be helpful.

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2 A.L.J. LEARY: Yes, I'm -- I'm --

3 MR. DAX: I can stop too.

4 A.L.J. LEARY: It's okay, we like
5 helpful, we do. Thank you. Is that helpful to you,
6 Mr. Wisniewski?

7 MR. WISNIEWSKI: Yes.

8 BY MR. WISNIEWSKI: (Cont'g.)

9 Q. Mr. Hecklau, do you know the
10 rotor diameter of the GE3.6-137 turbine?

11 A. By the name, I'm assuming it's a
12 137 meters.

13 Q. And do you know the rotor
14 diameter of the GE4.8/5.3158 turbine?

15 A. That's sounds like it would be
16 158 meters.

17 Q. So then is it your understanding
18 that the GE485.3158 has a larger rotor swept diameter
19 than the GE3.6-137?

20 A. That -- that sounds correct.

21 Q. And would you then agree that the
22 GE485.3 has a rotor swept area approximately 33
23 percent larger from the GE3.6137?

24 A. You know, I'd have to do the
25 math, but assuming you've done it then I have no

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2 reason to argue with it.

3 Q. Mr. Hecklau, isn't it true that
4 the photo simulations and the Canisteo Wind V.I.A.
5 included pictures of the smaller GE3.6137 and the
6 larger GE4.85.3-158?

7 A. They include photos with the --
8 the GE3.6 with the smaller rotor diameter.

9 Q. Which is a 33 percent smaller
10 swept area than the 158 model?

11 A. As you've indicated.

12 Q. And is it your testimony that
13 that is the worst case scenario for visual impact?

14 A. The -- are you asking what -- is
15 what we simulated the worst case scenario?

16 Q. Yes.

17 A. It's the worst case scenario in
18 terms of turbine height and turbine number. It's not
19 the largest rotor diameter if the other turbine was
20 used.

21 MR. WISNIEWSKI: I have no further
22 question.

23 MS. O'TOOLE: Yes, you do.

24 MR. WISNIEWSKI: Yes, sorry.

25 MS. O'TOOLE: You have two.

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2 MR. WISNIEWSKI: Okay. Strike my last
3 statement.

4 MS. O'TOOLE: I'll pass through that.

5 A.L.J. LEARY: Is that the same as the
6 zip?

7 MR. WISNIEWSKI: No, they're --
8 they're different file type, Your Honor.

9 A.L.J. LEARY: Yeah, that's what I
10 thought.

11 MS. VIGARS: I don't have it with me.

12 MR. DAX: I meant zip drive, that's
13 what I should have said.

14 A.L.J. LEARY: Okay.

15 MS. O'TOOLE: Oh, I'm just putting it
16 into the record.

17 MR. DAX: Okay.

18 A.L.J. LEARY: So before -- let's go
19 off the record for a second.

20 (Off record)

21 A.L.J. LEARY: We are going to give
22 Canisteo Wind Energy response to Sharkey 02IR a
23 hearing number of what do you have, 5 221. 222?
24 Hearing Exhibits number 222, anybody have anything
25 different?

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2 MR. DAX: 222.

3 A.L.J. LEARY: Great. And we will
4 give Canisteo Wind Energy response to Sharkey-08IR,
5 Hearing Exhibit number 223.

6 MS. VIGARS: Your Honor.

7 A.L.J. LEARY: Yes.

8 MS. VIGARS: Are either these IR
9 responses or the U.S.B.'s, confidential?

10 A.L.J. LEARY: Mr. Wisniewski, do you
11 know?

12 MS. O'TOOLE: I don't believe so.

13 MR. DAX: I don't either, Your Honor.

14 MR. WISNIEWSKI: The responses are not
15 marked as confidential, Your Honor. I don't recall
16 them being confidential.

17 MS. VIGARS: There is a State file
18 attached to in the -- on the thumb drive as Exhibit
19 223 so I just want to --

20 MS. O'TOOLE: I would have expected if
21 the applicant intended the response to be
22 confidential it would have been marked in their
23 response.

24 A.L.J. LEARY: And I'm not -- I'm -- I
25 don't need to worry about critical energy

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2 infrastructure, right, here?

3 MR. DAX: Right.

4 A.L.J. LEARY: Okay. I can see that's
5 fine in Sharkey-08, but I can't tell in the generated
6 facilities. Okay. Let's assume they are not
7 confidential. Go ahead, proceed.

8 CROSS EXAMINATION

9 BY MS. O'TOOLE:

10 Q. Mr. Hecklau, do you have what's
11 marked as Proposed Hearing Exhibit 222, entitled
12 Canisteo Wind Energy LLC response to Sharkey-02
13 interrogatory/document request?

14 A. Yes, I do.

15 Q. Are you familiar with this
16 document?

17 A. Yes.

18 Q. Did you prepare this document?

19 A. It was prepared under my
20 supervision.

21 MS. O'TOOLE: Your Honor, we would
22 request that Proposed Hearing Exhibit 222 be moved
23 into the record.

24 A.L.J. LEARY: Any objections? So
25 admitted.

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2 BY MS. O'TOOLE: (Cont'g.)

3 Q. Mr. Hecklau, do you have in front
4 of you what is marked as Proposed Exhibit 223
5 entitled Canisteo Wind Energy LLC response to
6 Sharkey-08 interrogatory/document request?

7 A. I do.

8 Q. Are you familiar with this
9 document?

10 A. Yes.

11 Q. Did you prepare the response to
12 this document?

13 A. Again, it was prepared under my
14 supervision.

15 MS. O'TOOLE: Your Honor, we would
16 seek to have Proposed Exhibit 223 admitted into the
17 record.

18 A.L.J. LEARY: Any objections? So
19 admitted.

20 MS. O'TOOLE: Now we have no further
21 questions, Your Honor.

22 A.L.J. LEARY: Okay. Can I just ask
23 the witness about the public perception of wind
24 facilities?

25 THE WITNESS: Sure.

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2 A.L.J. LEARY: What is the public
3 percept -- I'm talking about the latest literature
4 because now we have more wind than we did with the
5 study that is 10 years old. So talk to me about any
6 of the literature in the last couple of years that
7 talk about public perception.

8 THE WITNESS: So the -- the -- the
9 most comprehensive one to date and the most current
10 is one -- is the one that I referred to earlier. It's
11 a study that was authored by Ben Hoen and Dr.
12 Firestone, I think his name is, at the University of
13 Delaware. It was done for the Department of Energy
14 out of their Lawrence Berkeley Laboratory and it's --
15 I don't believe actually all the results are really
16 published yet, but they had a series of webinars
17 basically sharing the results. As I mentioned
18 earlier it's like 1,700 neighbors of wind projects,
19 24 States, all within a 5-mile radius of operating
20 projects, and those States include New York State, so
21 several projects there. It was a survey asking
22 people about their attitude toward winds projects and
23 the overwhelming -- the thing that -- that was most
24 striking to me was the degree of positive reaction to
25 the projects as opposed to what's oftentimes portrayed

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2 by opponents or the media of people hating these
3 projects. So I have some numbers I can share but if
4 I --

5 A.L.J. LEARY: Well, let me ask you
6 just a couple follow-up because --

7 THE WITNESS: Sure.

8 A.L.J. LEARY: -- this is very helpful
9 particularly for the Siting Board to understand
10 specifically in New York. What is the date of the
11 Department of Energy surveys, not the date that the
12 published results occurred, but the date of the
13 surveys?

14 THE WITNESS: You know I'd have to go
15 back to the abstract that they provided and see if
16 they even mentioned it, ma'am.

17 A.L.J. LEARY: Okay.

18 THE WITNESS: I don't know that --

19 A.L.J. LEARY: And what was the date
20 D.O.E. issued the actual results of the surveys?

21 THE WITNESS: I want to say it was
22 January of 2018.

23 A.L.J. LEARY: Okay. Is this -- from
24 your recollection, do you know whether the size of a
25 particular wind project affected the perception, in

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2 other words, did that factor into any other reported
3 results, thus the size of the project?

4 THE WITNESS: You mean in terms of
5 number of turbines?

6 A.L.J. LEARY: Correct.

7 THE WITNESS: I don't believe so. I
8 think it was the -- there were a variety of sizes
9 that's not data I'm privy to.

10 A.L.J. LEARY: So let me ask you your
11 opinion about that whether that would in fact impact
12 somebody's perception based on how many turbines they
13 see.

14 THE WITNESS: It certainly could.

15 A.L.J. LEARY: Okay.

16 THE WITNESS: I -- I'm relatively
17 certain that one of the New York projects was
18 probably -- was probably Maple Ridge which is almost
19 300 turbines.

20 A.L.J. LEARY: Well, it was done in
21 two phases that's why I asked you what the actual
22 results -- when those actual results were taken, so I
23 believe it was built in two phases.

24 THE WITNESS: Maple Ridge?

25 A.L.J. LEARY: Yes.

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2 THE WITNESS: No, it was all -- all
3 built at once.

4 A.L.J. LEARY: You're the expert.

5 THE WITNESS: I'm relatively certain
6 of that.

7 A.L.J. LEARY: Do you know?

8 MR. DAX: I think it was built in two
9 phases, Your Honor --

10 MS. O'TOOLE: Yes.

11 MR. DAX: -- but I -- I think that
12 phases were concluded quite a while ago. The second
13 phase is concluded a while ago.

14 A.L.J. LEARY: Yes.

15 THE WITNESS: I mean if they were
16 phases they were back to back.

17 A.L.J. LEARY: I see Mr. Miller
18 holding up two fingers. So I'm sorry to disagree,
19 Mr. Hecklau.

20 THE WITNESS: Okay. Well, if they
21 were two phases, they were back to back because I
22 think it all was --

23 A.L.J. LEARY: Of course. But the
24 question is when was the survey taken. So if you
25 took it today, would the survey be different if the

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2 survey for D.O.E. was done after only phase one or --

3 THE WITNESS: Well, if we are still
4 referring to Maple Ridge when that project was built,
5 you know, back in the early 2000s so --

6 A.L.J. LEARY: Yeah.

7 THE WITNESS: -- for sure the full
8 facility was up and running at the time they did the
9 surveys.

10 A.L.J. LEARY: The whole thing?

11 THE WITNESS: Yes.

12 A.L.J. LEARY: Oh, that right, okay.
13 Great. Thanks very much.

14 THE WITNESS: You're welcome.

15 A.L.J. LEARY: Anybody have -- you
16 have redirect?

17 MR. DAX: I have one redirect.

18 A.L.J. LEARY: Actually, I'm sorry,
19 Mr. Dax. Ms. Vigars.

20 MS. VIGARS: I think D.P.S. has some
21 questions.

22 A.L.J. LEARY: Ready to go?

23 MS. VIGARS: Yes.

24 A.L.J. LEARY: Okay.

25 CROSS EXAMINATION

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2 BY MS. VIGARS:

3 Q. One follow-up question based on
4 this discussion, this survey and the study that we've
5 been referring to, can you provide the full citation
6 to that published study, you mentioned the abstract
7 is available?

8 A. I have a hard copy of the
9 abstract and I think we might be able to provide a
10 web link; I can provide that as a follow-up.

11 Q. Okay. That would be very
12 helpful. Is the full study results published at this
13 time?

14 A. I don't know that answer.

15 Q. Okay.

16 A. You know, the abstract indicated
17 that a number of publications were anticipated to
18 come out of it because they looked at things beyond
19 visual. They also looked at noise and other issues
20 and so I think they anticipated a number of different
21 publications, some of which may be out, some of which
22 may not. I just -- I don't really know the current
23 status yet.

24 Q. So is the weblink to the most up-
25 to-date project information -- I'm sorry, the

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2 publishing information on this study?

3 A. The web link they could provide I
4 think would -- would take you to the same abstract
5 that I'm referring to. It may be updated since we
6 printed that abstract.

7 A. Okay. That would be helpful.

8 MR. DAX: We'll circulate that to all
9 parties.

10 A.L.J. LEARY: The abstract -- just
11 for the record, the abstract is not -- it's not going
12 to cut it. We need -- if you want to get the full
13 report in and I would suggest that that's where
14 you're going, Ms. Vigars, that's what we go for, that
15 full report should come in. The abstract, in my
16 view, is nothing more than, you know, somebody
17 summarizing some things about. I prefer the entire
18 report just so the examiners and the Siting Board and
19 all the parties can really take a look at it and see
20 if there is anything useful so.

21 THE WITNESS: If it's available we
22 certainly could do that. The -- the abstract, just
23 to clarify, Your Honor, it's --

24 A.L.J. LEARY: I can't imagine it's
25 not available on the D.O.E. webpage.

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2 THE WITNESS: Perhaps it is.

3 A.L.J. LEARY: Okay.

4 THE WITNESS: But the abstract it's
5 not -- what I'm referring to is not like an abstract
6 at the start of a scientific article, it might be a
7 couple paragraphs. It's multiple pages of summarized
8 results. So it -- it does have some substance to it.

9 A.L.J. LEARY: I still think that the
10 full report is necessary if we're going to be
11 complete. I would never rely on just that at --
12 myself, but there is always some qualifier that may
13 be a factor that enhances my understanding. I did
14 try to find it during your testimony. I was not able
15 to find it just from a Google search, but that's does
16 not mean it's not buried somewhere in, you know,
17 congressional research service or D.O.E.'s webpage or
18 something, but if you would like, Ms. Vigars, to
19 include this I -- I will entertain you moving it into
20 the record. Does anybody have an objection to this
21 D.O.E. report coming in, not having seen it and I'll
22 give you a chance to object later? Anybody have a
23 problem if we can get it into the record?

24 MR. WISNIEWSKI: Your Honor, I have no
25 objection with the caveat that the studies provided

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2 sufficient time to have my expert review it and it
3 should definitely be included.

4 A.L.J. LEARY: Right. So let's --
5 let's work on this and I'm going to ask Mr. Hecklau,
6 Ms. Vigars, Mr. Davis, Mr. Dax and even you, Mr.
7 Wisniewski, to make some effort to find this and --

8 MR. DAX: We have a web link to --
9 what appears to be a summary which then has links to
10 5 project results based on 5 topics.

11 A.L.J. LEARY: You want to take a look
12 at that Ms. Vigars and see which of those 5 links if
13 not -- if all of them you want in or I don't mean to
14 make work for you, but if you want to get this in to
15 the record, let us know. And can you circulate the
16 link?

17 MR. DAX: Is everybody online?

18 MS. VIGARS: Yes.

19 A.L.J. LEARY: I am.

20 MS. VIGARS: I am not but that is --

21 A.L.J. LEARY: We don't have to do
22 this now.

23 MS. VIGARS: -- okay.

24 A.L.J. LEARY: We can but --

25 MS. VIGARS: So just to clarify, my

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2 goal here was to identify with specificity this
3 survey that we're referring to. I don't know if I
4 were necessarily interested in having it moved into
5 the record, but the witness is referring to it. Like
6 we've done in all of our experts' testimony, we often
7 provide links to formal publications. I will
8 certainly stipulate to the fact that the report is
9 what it states to be available online, publicly
10 available. It's not necessarily -- I'm not holding
11 this witness accountable for this survey, but we're
12 referring to it in testimony, so we should have the
13 actual --

14 A.L.J. LEARY: Okay.

15 MS. VIGARS: -- reference information
16 to it.

17 A.L.J. LEARY: And we can take
18 judicial notice of an official government
19 publication, so feel free to use it. Let us know if
20 you actually want it in so everybody knows that it's
21 going to be used by somebody in the briefing. Okay.
22 Is that it for you, no?

23 MS. VIGARS: If you'll bear with me
24 one moment.

25 A.L.J. LEARY: Okay. Let's go back on

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2 the record.

3 BY MS. VIGARS: (Cont'g.)

4 Q. Mr. Hecklau, so in response to a
5 question by Mr. Wisniewski, you described the
6 landscape similar -- similarity zones, do you recall
7 that?

8 A. Yes.

9 Q. Okay. And the zones -- the
10 landscape similarity zones you identified previously
11 are the first one was city village, the second one is
12 forest, the third hamlet, the fourth rural upland and
13 the fifth rural valley, is that correct?

14 A. Yes, ma'am.

15 Q. Okay. I'm going to refer you to
16 the V.I.A. report Appendix E, visual impact rating
17 form instructions. What exhibit is this? I'm sorry.
18 But we're referring him to E. I'm sorry, Appendix F.
19 This is the original application. And it was
20 Appendix F to the original application materials, do
21 you have that available?

22 A. I have an Appendix F, but it's --
23 I'm not sure it's the same Appendix F. It's -- it
24 deals with public outreach.

25 MR. DAX: Are you -- you're referring

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2 to Appendix F to Appendix 24.A?

3 MS. VIGARS: I'm referring to this
4 document. I think it's Appendix E. I apologize. I
5 can hand it to the witness.

6 BY MS. VIGARS: (Cont'g.)

7 Q. It's titled Visual Impact Rating
8 Form.

9 A. Yes, I have that.

10 Q. Okay. It's part of Appendix E.
11 It's a portion of Appendix E. So Appendix E starts
12 with a table of context -- table of contents
13 coversheet and the visual impacts rating instruction
14 form is included as part of that appendix. Do you
15 have that available to you?

16 A. I do.

17 Q. Okay. Thank you. So in that
18 portion, the Visual Impact Rating Form Instructions,
19 in addition to those 5 categories identified
20 previously in your testimony. Again city village,
21 forest, hamlet, rural upland and rural valley, this
22 Appendix E portion also includes open water and
23 transportation corridor -- corridor as landscape
24 similarity zones.

25 A. Uh-huh.

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2 Q. Do you see that?

3 A. I do.

4 Q. Please explain why these zones
5 were not included.

6 A. Yes, I think -- I think these
7 were put in initially when we were still
8 contemplating how to break the study area down into
9 similarity zones, and there are some state highways
10 that have the characteristics that we might normally
11 think of as a transportation zone which is usually
12 like an interstate highway or divided highway with
13 lot of highway infrastructure. I think maybe the
14 Canisteo River may have also been considered for use
15 as an open water landscape similarity zone, but upon
16 further examination we -- we chose to lump those in
17 with other sub-zones surrounding them because they
18 didn't really rise to the level of sort of a
19 significant component of the landscape in the study
20 area. So this is -- this probably should have been
21 deleted, but was not.

22 Q. Do you recall which landscape
23 similarity zones those items you identified were
24 lumped into?

25 A. It would probably depend. I

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2 mean, so for instance a transportation corridor that
3 went through the City of Hornell would probably have
4 been lumped into the city/village L.S.Z. Most of the
5 roads that run through the study area are in valley,
6 so outside of the settlements it might be the rural
7 valleys L.S.Z. It might also be forest, you know,
8 depending on what was surrounding it.

9 Q. Is there any way you could
10 confirm?

11 A. I could check back with my staff.
12 I mean, I think the --

13 Q. Okay. That concludes our
14 questioning. Thank you.

15 A. Okay.

16 A.L.J. LEARY: Mr. Dax, redirect?

17 MR. DAX: I have one re-direct
18 question, but I also have three questions that I
19 would like to ask Mr. Hecklau, the nature of I would
20 guess sur -- surrebuttal. He wants the opportunity
21 to respond to three things that he heard during the
22 testimony, the surrebuttal oral testimony of Dr.
23 Palmer.

24 A.L.J. LEARY: Okay. What are those
25 three things?

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2 MR. DAX: One has to do with the --
3 the term visual distinction, which was a term that
4 Mr. -- that Dr. Palmer used. One has to do with the
5 relevance or the currency of the Vissering study the
6 2011 Vissering report, and the other one is the
7 comment that was made by Dr. Palmer in which he said
8 that the viewpoints used for the photo simulations
9 were picked by the project developer.

10 A.L.J. LEARY: Okay. Any objections?
11 Okay. Go ahead, proceed, Mr. Dax.

12 REDIRECT EXAMINATION

13 BY MR. DAX:

14 Q. Okay. Starting with those last
15 three first, Mr. Hecklau, is visual distinction a
16 term that has a generally accepted definition to your
17 knowledge?

18 A. No, it isn't.

19 Q. The -- in the -- the Vissering
20 document that you and Dr. Palmer had referred to,
21 does that provide specific definition of distance
22 zones?

23 A. It does.

24 Q. And are the zones defined in the
25 Vissering document, the zones that -- are they

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2 consistent with the zones that you used in the V.I.A.
3 here?

4 A. Yes, they are.

5 Q. And is it accurate that the
6 viewpoints that were selected for photo simulations
7 were prick -- picked by the project developer?

8 A. No, the viewpoints that were
9 ultimately selected for use as simulations were
10 developed through sort of an iterative process where
11 there was quite a bit of stakeholder and public
12 outreach conducted as part of the project, and
13 Appendix F of the V.I.A. basically outlines that
14 process. But to summarize, you know, sensitive
15 resources were identified and input was -- was sought
16 from various stakeholders on resources that should be
17 considered within the study area. There was follow-
18 up correspondence after we'd done some photo
19 documentation to share with stakeholders and
20 residents what we felt were -- would be appropriate
21 locations for the simulations and then there was also
22 a -- a community meeting where we presented some of
23 that information to the public at large and asked for
24 input. And so the final group of simulations that
25 were prepared are really largely shaped by that

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2 public input along with, you know, the -- the data
3 that we used to -- to, you know, come up with the
4 initial list of candidates.

5 Q. Thank you. Now, I'm --

6 A.L.J. LEARY: Excuse me. Largely
7 shaped. Did you accept all of the public's select --
8 or nominations, if you will, of viewpoints?

9 THE WITNESS: Not all them, ma'am.
10 The -- if -- in Appendix F, every viewpoint that was
11 suggested by the public is listed and it's quite a
12 few.

13 A.L.J. LEARY: Okay. I just want the
14 record to be clear. You did not include every single
15 one that they suggested, how could you, right?

16 THE WITNESS: That's right, ma'am.

17 A.L.J. LEARY: So but who made the
18 final decision on the selection? Who made that final
19 decision even though it was largely shaped by or, I'm
20 sorry if I mischaracterize your testimony, input from
21 the public input from the towns, et cetera, who made
22 the actual decision?

23 THE WITNESS: E.D.R. made the final
24 decision.

25 A.L.J. LEARY: E.D.R.?

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2 THE WITNESS: Correct.

3 A.L.J. LEARY: And did you make that
4 decision on your own or in conference with the
5 applicant?

6 THE WITNESS: I -- I never had any
7 conference with the applicant on that. This was
8 always an internal discussion.

9 A.L.J. LEARY: Okay. I understand,
10 but that's not the question about whether you did or
11 didn't. Did E.D.R. and the applicant do that
12 together or was it just solely E.D.R.'s unilateral
13 decision?

14 THE WITNESS: I don't know the answer.
15 I don't believe that -- I believe it was our
16 decision, but I -- I can't say that somebody didn't
17 correspond with the applicant on that, share the --
18 share the proposal. I just don't know that.

19 A.L.J. LEARY: What would -- what
20 would you normally do, I mean with that -- is that
21 normally the protocol you would follow when you're
22 being retained by an applicant to just unilaterally
23 select the viewpoints?

24 THE WITNESS: No, it wouldn't. If --
25 if that's the way I came across I -- I -- it wasn't

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2 meant that way. When -- when we make the final
3 selection, it's based on all the input that we
4 receive and -- and the first -- there is criteria
5 that we list in the V.I.A. for what we think are
6 basis, you know, the scientific basis for selecting
7 those viewpoints. So we want to have representative
8 distances, directions, landscape similarity zones.
9 We want to include sensitive resources of various
10 types. That's sort of where we start from all that
11 data that's out there which we document in the V.I.A.
12 about what constitutes sensitive resources and
13 character zones within the study area. From that we
14 come up with a list of candidates that we think as
15 visual professionals -- are good candidates for
16 visual simulation because they represent viewer groups
17 and resources within study area. We then share that
18 with the stakeholders and in this case at a public
19 meeting --

20 A.L.J. LEARY: And the applicant? Do
21 you share that with the applicant?

22 THE WITNESS: Yes, we share with the
23 applicants in the mix.

24 A.L.J. LEARY: Okay.

25 THE WITNESS: But we're not asking the

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2 applicant for --

3 A.L.J. LEARY: Right.

4 THE WITNESS: -- direction. We're
5 asking the stakeholders for direction.

6 A.L.J. LEARY: Yes.

7 THE WITNESS: I mean, it's very rare
8 on a -- on a visual study that an applicant either
9 requests or suggests those specific viewpoint be
10 included.

11 A.L.J. LEARY: You guys are the
12 experts.

13 THE WITNESS: Well, unless -- unless
14 there is something they are aware of that we're not,
15 you know, --

16 A.L.J. LEARY: Right.

17 THE WITNESS: -- a particularly
18 sensitive resource that may not be known to the
19 public they may have come across it, but yeah --

20 A.L.J. LEARY: Okay.

21 THE WITNESS: -- usually that's the
22 case.

23 A.L.J. LEARY: Okay. So I'm not sure
24 where that leaves us because I thought maybe that's
25 where you were going that somehow --

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2 MR. DAX: I'm done with that question

3 --

4 A.L.J. LEARY: Okay.

5 MR. DAX: -- I have my real redirect
6 questions still to go.

7 A.L.J. LEARY: Okay. Okay.

8 MR. DAX: Yes, but that we were just
9 responding to the comment that left the record with
10 the idea that it was a unilateral decision by the
11 applicants and that was -- that was the out -- that
12 was the suggestion left by Mr. -- by Dr. Palmer
13 yesterday.

14 A.L.J. LEARY: I'm -- I'm -- I'm still
15 -- I am still in the don't know about that because it
16 sounds like E.D.R. made the decision.

17 MR. DAX: Right. E.D.R. made the
18 decision based on all the input. I think --

19 A.L.J. LEARY: Right.

20 MR. DAX: I think Mr. Hecklau's
21 testimony is exactly right. I don't --

22 A.L.J. LEARY: Okay.

23 MR. DAX: -- there is nothing
24 inaccurate or misleading or anything about that
25 answer.

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2 A.L.J. LEARY: Okay.

3 MR. DAX: It is just perfectly
4 accurate.

5 MR. WISNIEWSKI: Your Honor, I still
6 have cross-examination on that line of questioning.

7 MR. DAX: This was -- this was a --
8 we're now getting very far afield from --

9 A.L.J. LEARY: Well, you opened the
10 door looking for surrebuttal and I let you do it,
11 it's okay.

12 MR. DAX: Dr. Palmer -- Dr. Palmer was
13 given surrebuttal in a very unusual procedure
14 yesterday.

15 A.L.J. LEARY: We -- we don't need to
16 revisit that, Mr. Dax. What -- what -- where we are
17 is today. You open the door to surrebut Dr. Palmer's
18 testimony. I've let you do that. Now, the -- the
19 party who represents Dr. -- Mr. Sharkey and brought
20 Dr. Palmer into the mix has a right to ask follow-up
21 questions about that and I'm going to let that
22 happen. So but --

23 MR. DAX: Okay.

24 A.L.J. LEARY: -- do you want to wait
25 for your redirect until --

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2 MR. DAX: Yes, I'll wait -- yeah,
3 let's keep -- you like to keep the record together on
4 the topic --.

5 A.L.J. LEARY: Well, on those issues
6 and I don't want you straying somewhere else, Mr.
7 Wisniewski, just --

8 MR. WISNIEWSKI: No, Your Honor, it
9 will be limited in scope.

10 A.L.J. LEARY: Okay. Go ahead.

11 CROSS EXAMINATION

12 BY MR. WISNIEWSKI:

13 Q. Dr. Hecklau, you just mentioned
14 some public meetings for the solicitation of
15 representative viewpoints. Did your initial
16 solicitation for representative viewpoints include
17 those public meetings?

18 A. No, that was a -- that was a
19 suggestion that we -- that we followed from, I
20 believe, CMORE.

21 Q. And did -- did CMORE suggest that
22 to you or did the applicant suggest that to you?

23 A. I think that you're referring to
24 the public meeting that was held in Canisteo?

25 Q. Correct.

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2 A. It came to us. I mean I -- I
3 can't remember the exact mechanism that it came to
4 us, but it was in a comment that was provided either
5 by Dr. Palmer or CMORE that we discussed, and the
6 decision was made to do what was suggested.

7 Q. Did any stakeholders provide you
8 -- did any stakeholders nominate potential
9 representative viewpoints before the meeting
10 occurred?

11 A. We got nominations from the
12 solicitations we made. We did get -- we did get
13 suggestions from a variety of parties.

14 Q. And had you selected any of those
15 nominations as visually -- as representative
16 viewpoints before the meeting?

17 A. I'm trying to remember the
18 sequence. I believe so. I believe that -- that --
19 that stakeholder input had already been factored into
20 the candidate viewpoints that we presented at the
21 meeting, but I -- I don't know that for sure.

22 Q. Do you recall if visual impact
23 assessment had already been conducted before the
24 meeting was held?

25 A. No, it had not.

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2 Q. At the meeting do you recall how
3 many viewpoints were nominated by the public?

4 A. I don't off the top of my head,
5 but it is in the V.I.A. and the appendix.

6 Q. Do you recall of all the
7 nominated viewpoints, how many were ultimately
8 selected as representative viewpoints?

9 A. I believe it was 4 out of the 17.

10 Q. So only 17 were nominated?

11 A. 17 is what we ultimately did. We
12 prepared simulations from 17 viewpoints.

13 Q. Mr. Hecklau, you noted that one
14 of the viewpoints that you modeled is representative
15 of a view from Mr. Sharkey's residence, is that
16 correct?

17 A. I -- I didn't indicate that.

18 Q. Are any of the representative
19 viewpoints from residences?

20 A. They're in the vicinity of
21 residences. They're all taken from public vantage
22 points, so at road locations near residences.

23 Q. So then would you say that any
24 road location near a residence could be considered
25 representative viewpoint?

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2 A. Yes.

3 Q. But not the residence itself?

4 A. No, we don't typically go onto
5 private property.

6 MR. WISNIEWSKI: I have no -- no
7 further questions, Your Honor.

8 A.L.J. LEARY: Mr. Dax.

9 MR. DAX: Ms. Angus, carrying over to
10 the witness Mr. Hecklau a laptop with the last page
11 of Appendix 24 -- 24A memo called visual memo filed
12 as part of the May 24th updates, it's hearing --
13 which is part of Hearing Exhibit 7 and it's in
14 D.M.M.2 -- 208. Again it's Exhibit 24, Appendix 24.A
15 memo. And I didn't bring copies with me because I
16 wasn't intending -- planning this in advance.

17 A.L.J. LEARY: It's already in the --

18 MR. DAX: Yes, it's in the record.

19 A.L.J. LEARY: -- hearing list. We
20 all have it.

21 BY MR. DAX: (Cont'g.)

22 Q. So do you have that in front of
23 you, Mr. Hecklau?

24 A. I do.

25 Q. And -- and what does that -- what

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2 is the -- what is shown on the last page of that
3 memorandum, which is a memorandum from you and Mr.
4 Perkins to Eric Miller?

5 A. It's -- it's 3 different turbines
6 that would be under consideration for use.

7 Q. And what are the 3?

8 A. It's the GE137, the GE158 and the
9 Vestas V150.

10 Q. And what is the hub height give -
11 - give the name of the turbine and the hub height of
12 each?

13 A. Okay. So the GE137 has a hub
14 height of 112 meters or 367 feet. The GE158 has a
15 hub height of a 101.5 meters or 333 feet and the
16 Vestas V150 has a hub height of 105 meters or 344
17 feet.

18 Q. And what is the tip height of the
19 3?

20 A. The total height at the blade tip
21 for the GE137 is 180.5 meters or 592 feet. For the
22 GE158, it's 180.5 meters or 592 feet and for the
23 Vestas V150 it's a 180 meters or 591 feet.

24 MR. DAX: I have nothing further, Your
25 Honor.

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2 A.L.J. LEARY: I thought that Mr.
3 Wisniewski asked about the rotor diameter and you
4 have not asked that question, but I am going to ask
5 the witness to, for the record, indicate the
6 different rotor diameters. Mr. Wisniewski, am I
7 missing something?

8 MR. DAX: It's on the record -- it is
9 on the record already.

10 A.L.J. LEARY: Did you -- did you
11 recite rotor?

12 MR. DAX: No, I mean it was in a
13 response to Mr. Wisniewski's questions earlier.

14 A.L.J. LEARY: I'm still going to ask
15 you to read the -- because that's completing this
16 information. So for the record, would you read the
17 rotor diameter of those 3 models?

18 THE WITNESS: Sure. For the GE137
19 the rotor diameter is 137 meters or 449 feet. For
20 the GE158 the rotor diameter is a 158 meters or 518
21 feet and for the ves -- Vestas V150 the rotor
22 diameter is 150 meters or 492 feet.

23 MR. DAX: That's all -- that's all I
24 have, Your Honor.

25 A.L.J. LEARY: Okay. Great. Anybody

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2 else? Okay. Who do we have? We have Mr. Miller.
3 Do we need -- does anybody need a break other than
4 Mr. Miller?

5 THE REPORTER: Your Honor, I think we
6 should have a break.

7 A.L.J. LEARY: You want a break?

8 The reporter: Yeah.

9 A.L.J. LEARY: Okay.

10 THE REPORTER: Less than 5 minutes.

11 A.L.J. LEARY: Less than 5 minutes,
12 everybody.

13 (Off record)

14 A.L.J. LEARY: Mr. Miller, would you
15 raise your right hand, please? Do you swear that the
16 testimony you're about to give is the truth and the
17 whole truth?

18 MR. MILLER: I do.

19 WITNESS; ERIC MILLER; Sworn.

20 A.L.J. LEARY: Please state your name
21 and your affiliation with -- for the record.

22 THE WITNESS: My name is Eric Miller.
23 I am Vice President of Development for Invenergy and
24 Canisteo Wind Energy.

25 A.L.J. LEARY: Mr. Dax.

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2 MR. DAX: Thank you.

3 DIRECT EXAMINATION

4 BY MR. DAX:

5 Q. Mr. Miller, do you have in front
6 of you a package of various pre-filed testimonies
7 that were filed by you in this proceeding?

8 A. Yes.

9 Q. I have in front of me a -- a
10 document consisting of 28 pages, 7 of which are typed
11 written questions and answers followed by your
12 curriculum vitae and then a document entitled
13 applicant's proposed certificate conditions. Is this
14 -- is this your pre-filed testimony that was filed
15 with the application?

16 A. It is.

17 Q. And in the first 2 pages of that
18 pre-filed testimony, it lists the exhibits of the
19 application for which you were responsible or had
20 shared responsibility with Mr. Woodcock, is that
21 correct?

22 A. That's correct?

23 Q. And then I have in front of me a
24 document entitled The Prepared Rebuttal Testimony of
25 Eric Miller consisting of 39 pages of typed written

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2 questions and answers. It's dated July 31st, 2019.
3 Was this prepared by you and filed with the rebuttal
4 filing?

5 A. Yes.

6 Q. And then there is a document
7 entitled Prepared Supplemental Rebuttal Testimony of
8 Eric Miller dated August 16th, 2019, consisting of 6
9 typed written pages of questions and answers. Did
10 you file that testimony in this proceeding?

11 A. I did.

12 Q. And if I were to ask you which of
13 the questions in those 3 documents today would your
14 answers be the same as given in the testimony?

15 A. It would.

16 Q. And do you attest that those
17 answers are truthful and accurate?

18 A. Yes.

19 Q. And with your testimony -- with
20 your rebuttal testimony, did you file 4 exhibits --
21 the 4 exhibits accompanying your -- your pre-filed
22 rebuttal testimony?

23 A. Yes.

24 Q. I have in front of me a document
25 entitled Exhibit EM-R1 Proposed Certificate

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2 Conditions Revision 2 dated 7/31/19. Is -- is that
3 one of the documents that we just referred to?

4 A. Yes.

5 MR. DAX: And that has been pre-
6 marked, Your Honors, as Hearing Exhibit 11. And then
7 there is a Hearing Exhibit 12 -- what has been pre-
8 marked as Hearing Exhibit 12 is a document referring
9 to -- labeled budget estimate for Invenergy Aircraft
10 Detection Lighting System Solution for Canisteo Wind
11 farm consisting of 10 pages. Was that an exhibit
12 filed with the rebuttal testimony?

13 THE WITNESS: It was, yes.

14 BY MR. DAX: (Cont'g.)

15 Q. And I have pre-marked as Hearing
16 Exhibit 13, a confidential -- it is filed in both
17 confidential and redacted form and I'm only talking
18 about the redacted version here, a response to -- a
19 response to a DPSIOR DPS-8 an economic analysis of
20 curtailment. Is that -- was that also provided as an
21 exhibit with your testimony?

22 A. Yes, it was.

23 A.L.J. LEARY: And that was EM.

24 MR. DAX: That -- that is Hearing
25 Exhibit 13.

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2 A.L.J. LEARY: I understand, EMR3?

3 MR. DAX: No, it's DP -- it was a --
4 it was a response.

5 A.L.J. LEARY: I'm sorry.

6 MR. DAX: It was a response to a -- a
7 question that we posed to -- it was a -- it was a
8 response to a D.P.S.I.R. that was prepared by Mr.
9 Miller.

10 A.L.J. LEARY: I understand, but it's
11 attached to Mr. Miller's testimony?

12 MR. DAX: Oh, that was -- that would
13 have been EMR3, I'm sorry.

14 A.L.J. LEARY: That's what I asked.
15 Okay.

16 MR. DAX: Yes, EM -- EM --

17 A.L.J. LEARY: Please, identify those
18 as well as the hearing exhibit number?

19 MR. DAX: Okay.

20 BY MR. DAX: (Cont'g.)

21 Q. And EMR4 identified in your test
22 -- rebuttal testimony also identified as Hearing
23 Exhibit 14 consists of a table of that as -- in the
24 left column says D.E.C. proposed condition and in the
25 right column C.W.E. comment consisting of 5 pages,

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2 was that also -- was that your Hearing Exhibit EMR4?

3 A. Yes.

4 Q. And those exhibits -- the
5 exhibits you intend to, were those the exhibits that
6 you attached to your -- to your rebuttal testimony?

7 A. Yes.

8 MR. DAX: Your Honor, I'd ask that
9 those exhibits be -- the testimony and those exhibits
10 be moved into evidence.

11 A.L.J. LEARY: Just so I understand,
12 what you've just covered is all of Mr. Miller's
13 testimony that has been submitted in this matter?

14 MR. DAX: That's right.

15 A.L.J. LEARY: So that would include
16 the July 31st, 2019 rebuttal, the August 16th
17 surrebuttal and is there anything else?

18 MR. DAX: Yes, the -- the original
19 testimony that accompanies the application Hearing
20 Exhibit 1.

21 A.L.J. LEARY: That's right. And that
22 was dated?

23 MR. DAX: That would have been
24 November 2nd, 2018 roughly.

25 A.L.J. LEARY: Thank you. Any

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2 objections? Okay. So admitted both the testimony
3 and the exhibits.
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**NEW YORK STATE BOARD ON ELECTRIC
GENERATION SITING AND THE ENVIRONMENT**

-----	X	
	:	
In the Matter of	:	
	:	
CANISTEO WIND ENERGY LLC	:	Case 16-F-0205
	:	
Application of Canisteo Wind Energy LLC for a	:	
Certificate of Environmental Compatibility and Public	:	
Need Pursuant to Article 10 for Construction of a	:	
Wind Project Located in Steuben County.	:	
	:	
-----	X	

**PREPARED SUPPLEMENTAL REBUTTAL
TESTIMONY OF ERIC MILLER**

August 16, 2019

Eric Miller
Invenergy LLC
One South Wacker Drive, Suite 1800
Chicago, Illinois 60606

Case 16-F-0328

Eric Miller
Invenergy LLC

1 **Q. Have you previously filed testimony in this proceeding?**

2 A. Yes. I offered testimony in support of portions of the Application for
3 which I was responsible with the Application and rebuttal testimony dated
4 July 31, 2019.

5 **Q. What is the purpose of this testimony?**

6 A. To address testimony submitted by the towns on decommissioning,
7 primarily the report prepared by Energy Ventures Analysis titled
8 “Canisteo Wind Energy Center Decommissioning Assessment” and dated
9 August 2019.

10 **Q. Are you sponsoring any exhibits with your rebuttal testimony?**

11 A. No.

12 **DECOMMISSIONING SCOPE**

13 **Q. Do you agree with the scope of decommissioning as analyzed by EVA?**

14 A. Not fully. I agree with the need to ensure inoperable or abandoned wind
15 turbines are not left in place on leased land. But I do not agree that funds
16 should be set aside to ensure removal of those facilities that create little or
17 no environmental, public safety or visual impacts, or that remain useful, or
18 buildings on CWE’s private, fee-owned property. Specifically, I do not
19 think it’s appropriate to require CWE to set aside funds to remove gravel

Case 16-F-0328

Eric Miller
Invenergy LLC

1 access roads, buried cables, or the O&M building. Removal of the
2 collection substation is also questionable, as this infrastructure would
3 likely be useful in the future.

4 **Q. Why do you think roads should not be covered by a decommissioning**
5 **bond?**

6 A. Property owners consider the gravel access roads built for the project to be
7 valuable improvements. The roads are built with a firm base and can be
8 used even when fields are wet. Owners appreciate the ability to access
9 their property during varied conditions, and owners that farm their
10 property find the roads valuable for transporting trucks loaded with hay,
11 corn, and other harvested crops. Removing the road would cause a
12 temporary environmental disturbance, and I believe it would be rare that
13 an owner would want to have a road removed. Given this, I find it an
14 inappropriate use of resources to set aside money for road removal.

15 **Q. How much of the EVA decommissioning estimate is due to road**
16 **removal?**

17 A. EVA's estimate in Figure 11 shows a cost of \$1.573 million for road
18 removal. Assuming 117 turbines, this amounts to \$13,444 per turbine.

19 **Q. Why do you think the O&M Building should not be covered by a**
20 **decommissioning bond?**

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Eric Miller
Invenergy LLC

1 A. The O&M building will be a new building built on private property. The
2 building should have useful life beyond the life of the wind turbines and
3 will be readily, and likely to be, repurposed if it was no longer needed by
4 the wind farm. In addition, it is inconsistent to require decommissioning
5 funds be posted for a new building just because it is related to a wind
6 farm. I am not familiar with other private owners that build new
7 residences, barns, or commercial buildings being required to post security
8 for the eventual removal of their building. For these reasons, I find it an
9 inappropriate use of resources to set aside money for O&M building
10 removal.

11 **Q. EVA Figure 1 allocates \$9,784 per turbine for decommissioning of**
12 **collection lines and the substation. Do you think this is an**
13 **appropriate set-aside for these activities?**

14 A. No. I do not think it's a wise use of resources to remove buried cables
15 after they are no longer needed. As part of wind turbine removal, the
16 cables would be disconnected from the wind turbines and thus de-
17 energized. The cables will be buried 3-4 feet or more below grade.
18 Removing the cables would create an environmental disturbance,
19 especially in locations where they are bored underneath streams or

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Eric Miller
Invenergy LLC

1 wetlands, with little benefit. For this reason, I recommend the cables be
2 left in place and no decommissioning funds be allocated for this task.

3 The collection substation should continue to be useful equipment even if
4 the wind turbines are removed. It would be connected to the transmission
5 system by a relatively new transmission line and could be an asset for a
6 business looking for a location to generate electricity or a draw power
7 from the grid. I recommend it be left in place for future use.

8 **Q. Did you review EVA's analysis of wind turbine salvage value?**

9 A. Yes. EVA discusses salvage value on page 11 of its report. The estimate
10 ignores the sale of the turbine for reuse and instead considers the value of
11 the steel and copper in the turbine. They estimate each turbine will have a
12 salvage value between \$29,273 and \$118,743, with an average of \$74,008
13 per wind turbine.

14 **Q. Given your comments in this testimony, do you agree with the**
15 **decommissioning security requirement of \$156,000 per wind turbine**
16 **that is presented by EVA in Figure 1?**

17 A. I recommend a value of \$97,000 per wind turbine, based on the modified
18 version on EVA Figure 1 presented below. In this summary, I include a
19 credit for wind turbine salvage value but used only the lower value in the
20 95% confidence interval given in the EVA analysis.

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Eric Miller
Invenergy LLC

Cost Category	Median Cost – EVA	Median Cost – CWE
Wind Turbine and Base	106,639	106,639
Collection Lines and Substation	9,784	0
O&M Building	4,260	0
Access Road Reclamation	11,999	0
Meteorological Towers	600	600
Permitting *	2,137	2,137
BoP Subtotal	28,780	2,737
Turbine + BOP	135,418	109,376
Contingency (10%)	13,542	10,937
Indirect Costs (5%)	6,771	5,469
Total	\$155,731	125,750
Use (Rounded)	\$156,000	126,000
Salvage (rounded)	0	-29,000
Net after Salvage	156,000	97,000

1

2 **Q. Does this complete your testimony?**3 **A. Yes.**

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2 MR. DAX: The witness is available for
3 examination.

4 A.L.J. LEARY: Who has cross? Let's
5 go with Mr. Mullen. We haven't heard enough from you
6 this afternoon.

7 CROSS EXAMINATION

8 BY MR. MULLEN:

9 Q. Good afternoon, Mr. Miller.

10 A. Good afternoon.

11 Q. Are you overseeing this project
12 with Canisteo Wind Energy?

13 A. I am.

14 Q. And is it fair to say that you've
15 testified somewhat extensively to environmental
16 benefits of wind turbines?

17 A. Not quite. I mean we got one
18 other case and I've been involved in that one, that's
19 the number 3 exhibits.

20 Q. In the -- in the testimony that
21 you filed in this case.

22 A. Yes, I agree.

23 Q. Okay. Would it be fair to say
24 you believe this project is healthy for the
25 environment?

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2 A. Yes.

3 Q. Okay. And that one of your goals
4 as a developer is to ensure that environmental
5 impacts are mitigated?

6 A. Yes.

7 Q. Is it your perception in
8 developing the -- one of the more passionately
9 contested environmental issues has been its effect in
10 a viewshed?

11 A. Yes, I agree.

12 Q. And are you aware of the town's
13 preference with -- to have radar-activated lighting?

14 A. Yeah, I know that's in one of the
15 towns' laws and I know it from speaking with you,
16 that it's something the towns are interested in, but,
17 you know, I have not heard that directly from all of
18 the towns, but in general, yes.

19 Q. So you are aware in -- in
20 general?

21 A. I know it's an issue, yes.

22 Q. And you viewed it in the issues
23 list and the testimony that was filed by Cathy
24 Spencer, correct?

25 A. I don't have that list memorized,

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2 but I don't doubt it was there.

3 A.L.J. LEARY: Can you speak up, Mr.
4 Miller? Thank you.

5 THE WITNESS: Okay.

6 BY MR. MULLEN: (Cont'g.)

7 Q. Okay. You talked about one of
8 the towns having in their law?

9 A. Yes.

10 Q. And are you aware that it says a
11 developer shall install radar-activated lighting
12 system if feasible and approved by an F.A.A.?

13 A. Yes.

14 Q. Okay. And are you generally
15 familiar with the public service law requiring an
16 applicant to seek to mitigate impacts?

17 A. Generally, yes.

18 Q. Okay. And that they should
19 mitigate them to the maximum extent possible --
20 feasible?

21 A. I'm going to defer to my legal
22 counsel on that. I don't know the exact wording and
23 I know these things to be fairly important.

24 Q. Okay. Are you aware that one of
25 the impacts that is considered is the effect on

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2 community character?

3 A. Yeah, I know community character
4 comes up in the discussions. I believe it's covered
5 in the application so yes, it's a -- it's a topic
6 that's covered.

7 Q. How would you describe the
8 community character of the Canisteo Wind project
9 area?

10 A. It's a rural area. It's largely
11 agricultural, rolling hills and to be developed.

12 Q. Would you say that there are
13 beautiful views in the area?

14 A. It's all a matter of opinion, but
15 --

16 Q. What's your opinion?

17 A. Yes, I think it's a nice place.

18 Q. Now, have you -- what have you
19 done to look into the feasibility of installation of
20 the radar activated lighting?

21 A. We contacted a vendor that --
22 that offers a -- it sells radar-activated lights and
23 we asked for a quote from that vendor and that's
24 what's included as the second exhibit with my
25 testimony.

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2 MR. MULLEN: Would anyone like a copy
3 of that?

4 A.L.J. LEARY: I would.

5 MR. WISNIEWSKI: Eric, if you have
6 plenty, I'll take one too.

7 MR. DAX: This is Hearing Exhibit 12
8 for the record.

9 BY MR. MULLEN: (Cont'g.)

10 Q. Have you done anything other than
11 obtaining this quote?

12 A. We've also received information
13 from another vendor that sells a different
14 technological solution which is dimmable lights.
15 It's another option.

16 A.L.J. LEARY: Is that in the record,
17 Mr. Miller?

18 THE WITNESS: That one is not, no.

19 BY MR. MULLEN: (Cont'g.)

20 Q. Now, in addition to this quote,
21 your testimony also discusses additional cost, your
22 July 31st testimony, I believe, Pages 20 to 21 in
23 that testimony, is that correct?

24 A. Correct.

25 Q. And you testify in there that it

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2 would -- in order to install a system that it would
3 likely take two radar units, correct?

4 A. Correct.

5 Q. And that installing the
6 infrastructure required other -- other than what --
7 what is purchased from the company that gave the
8 quote would be an additional \$975,000 correct?

9 A. Correct.

10 Q. And that ongoing operation and
11 maintenance for 30 years would cost \$900,000,
12 correct?

13 A. Yes.

14 Q. Okay. And that -- that complete
15 cost over 30 years was estimated at \$2.8 million?

16 A. Yes.

17 Q. Okay. How -- how did you come up
18 with the \$975,000 and \$900,000 estimates?

19 A. So the \$975,000 -- so the -- the
20 quote that we received is for the hardware and it
21 does not include the cost to actually install the radar
22 units and so we had to make some estimates of what it
23 would take. We didn't know exactly what those were,
24 but we had to make estimates. We have to basically
25 obtain land by entering into land agreements from

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2 somebody. We would have to construct a concrete pad
3 site to have this tower on. You would have to pay to
4 have the cables buried underground to get to that
5 site which may not be near the -- may not be along an
6 electrical collection system line, almost probably
7 not and so we made estimates for those distances
8 having an idea of what it cost to bury cables. We
9 added that up and came up with -- with this \$975,000
10 and that's for two sites. The \$900,000 is based off
11 of a, I believe, it's a price in their estimates of
12 what the annual maintenance charge is and that's --
13 or the monthly maintenance charge and that's simply
14 multiplying that up by 30 years.

15 Q. Okay. And how many turbines did
16 they base that on?

17 A. I believe they based it on a 100
18 -- let me just verify, 122.

19 Q. 122. And so for the maintenance
20 cost, is that something that is divisible by the
21 turbine?

22 A. In this case, no. It was a fixed
23 quote. It was a per month charge. It didn't vary it
24 by number of turbines.

25 Q. Did you ask them whether the

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2 amount would change depending on the number of
3 turbines?

4 A. We have not, but that's
5 something, you know, this is not a first quote, so
6 maybe that's something that could be negotiated.

7 Q. Do you think that it might be
8 able to be adjusted based on the number of turbines?

9 A. I think it's possible, but I
10 don't think it's going to be a significant
11 difference. I think there's a certain fixed cost for
12 these guys to be able to monitor a site and have
13 someone available to come out and maintain the radar
14 unit if something comes up and that's there, whether
15 there's -- regardless of the number of turbines. So
16 I would suspect that's a relatively fixed cost.

17 Q. And you've testified essentially
18 that you do not believe that the potential benefit of
19 this system is worth the cost, correct?

20 A. That's correct.

21 Q. Is there a price that you believe
22 would be a reasonable price to construct the system?

23 A. It's difficult to say given the -
24 - I think there are some questions about how
25 beneficial it would be given some of the other

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2 factors. One of them is that some of the -- the
3 other projects in the area already exist and don't
4 have this system. So there was a question of how
5 much of a -- of an impact, how much it's changing the
6 lights in the area. I think something that's also
7 not factored in is that the lights that are being
8 used now are LED lights and I think that's different
9 than some of the older turbines that people might be
10 familiar with. Around 2010 they began installing --
11 they switched from incandescent lights to LED lights.
12 With the LEDs my understanding is they're able to
13 direct those upwards more and so you have less light
14 downwards. So if you look at the older projects,
15 they may not be a good example of what you're going
16 to have here. So all of those -- those are factors
17 that change the fact of how much benefit a system
18 like this would have. So I think you have to weigh
19 the cost versus the benefits.

20 Q. Okay. So regarding the other
21 area turbines, would you say that that's sort of a
22 cumulative analysis that you're discussing there?

23 A. It's a dangerous term, I'd rather
24 not say that. I -- I just -- I think that that's a
25 loaded term. The term cumulative has been used, I

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2 think, means different things to different people.
3 I'm not sure that applies here and I'll have to think
4 about that so.

5 Q. Well, are you taking it into
6 account with the other projects would you say that's
7 a --

8 A. Yes.

9 Q. -- fair a cumulative definition?

10 A. I'm saying I -- I think that the
11 -- the benefit of this system should be considered
12 factoring in whether or not there's other lights in
13 the area that are also going to be dimmed.

14 Q. Okay. And is that a similar
15 analysis that you believe should be done with sound
16 and flicker?

17 A. No, those are different kind of
18 analysis that I honestly don't have an answer
19 prepared for that. That's a different situation.

20 Q. Could you expound on that why you
21 believe those are different scenarios?

22 A. I honestly would need time to
23 think about it. I don't want to make a snap decision
24 and judgment and declare those to be equal because
25 they are -- yeah.

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2 Q. Do you think that anything about
3 this project has been a snap decision?

4 A. No, it's not.

5 Q. Okay. And so as you put time
6 into thinking about this in considering the radar
7 activated lighting system, one of the things that you
8 discussed and -- and that you've talked about a
9 little bit already just now, was how the other --
10 because of the other wind farms you should not have
11 to use radar activated lighting, correct?

12 A. Essentially, yes.

13 Q. Okay. Now which wind farms are
14 you talking about?

15 A. I am thinking of the Marsh Hill
16 Wind Farm that's in the middle of the project that
17 currently operates without radar activated or
18 dimmable lights. The 8-Point project which was
19 issued a siting certificate yesterday and I believe
20 it has a condition in there that says they have to
21 consider the feasibility of radar activated lighting,
22 but it was not a clear decision as to whether or not
23 that project will have radar activated lights, but
24 that's a project in Baron. It's a project that
25 might be in the area, it's further north and from

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2 some of the areas how are these visible and Howard
3 already has lights and unless, you know, those aren't
4 radar activated.

5 Q. And do you think that -- that if
6 8-Point has ends up with radar-activated lighting
7 that -- that should be an indicator that you also
8 should?

9 A. I would agree that that makes the
10 benefits of having radar-activated light at this
11 project greater, but I think it would be -- the
12 counter is I think if 8-point does not have radar-
13 activated lights, I think you start to question how
14 much benefit there is for spending \$2.8 million for
15 radar-activated lights on this project.

16 Q. Do you know whether it's possible
17 to combine a radar system for both projects?

18 A. I do not know that.

19 Q. Now, on Pages 28 to 29 of your
20 testimony, the July 31st testimony.

21 A. Yes.

22 Q. Is there a discussion towards the
23 bottom of that page on cumulative impacts?

24 A. Yes.

25 Q. Talking about lines -- beginning

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2 in line 17 and --

3 MR. DAX: Mr. Miller may -- may have a
4 different printout, so if you would want to look at
5 the other package.

6 THE WITNESS: Thank you. It's not on
7 here. Which -- you're saying Page 28?

8 BY MR. MULLEN: (Cont'g.)

9 Q. Yes. And lines beginning on line
10 17. You know, I do have the -- the printout that I
11 have does have some of the confidential information
12 or so --

13 A. That's probably the difference,
14 okay.

15 Q. Okay.

16 A. What are the words you're getting
17 at? You're talking about cumulative impacts?

18 Q. Yes, you find it in there?

19 A.L.J. SHERMAN: There is a heading,
20 it says cumulative impacts.

21 THE WITNESS: Got it. I'm at the
22 heading, yes.

23 BY MR. MULLEN: (Cont'g.)

24 Q. Okay. And do you agree in there
25 that you said that Canisteo Wind Energy is not

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2 responsible for impacts created by other wind farms.
3 There appears to be an assumption that because of
4 nearby projects their wind energy projects you could
5 be assigned responsibility for those projects
6 impacts?

7 A. Yes, that's what it says.

8 Q. And so is it -- is it your
9 opinion then that related to noise and flicker, those
10 are those kind of cumulative impacts that you
11 shouldn't be responsible for, but we should not -- we
12 should consider cumulative analysis for radar?

13 A. As if I have more time to sit
14 here and think about this, you know, you're really
15 looking at this in reverse. What if -- what if
16 another wind project or let's say -- let's say we're
17 talking about noise, let's say somebody invented --
18 somebody decided that all the snowmobiles were going
19 to be motor driven snowmobiles that made no noise
20 whatsoever. So suddenly does that mean they should
21 turn around to us and say, 'Hey, your wind project is
22 making more noise and the snowmobiles got more quiet,
23 so you should be more quiet too'. And suddenly I
24 should have to change the way we operate the wind
25 farm. I mean that's comparing to very loud noise

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2 source to very quiet noise source in the wind farms,
3 but the same thing is going on here with the lights.
4 We are doing it in reverse. If one of the projects
5 is to come up with a -- is to install something that
6 is going to minimize impacts, which I agree is a good
7 thing to minimize the impacts, does that mean all the
8 other projects should do the same thing? That's I
9 think we look -- I think it's a reverse situation.

10 Q. We -- we think that Marsh
11 Hill should have them as well.

12 A. I understand. I understand this.
13 I'm not debating whether there's a benefit. I'm just
14 saying it's a cost benefit question.

15 Q. Okay. Now a little bit later on
16 and I get our pages are -- our pagination is little
17 bit different. Do you remember discussing that noise
18 assessment could be undertaken by examining project
19 noise as an addition to existing ambient noise
20 levels?

21 A. Yes, it's in there, yeah.

22 Q. Okay. And so if we made that
23 analogous to the lighting situation, wouldn't we be
24 considering Canisteo Wind the light that's added in
25 addition to the existing light levels?

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2 A. Yes.

3 Q. Okay. And if we could circle
4 back to the mitigation in general, you discussed that
5 there's a possibility of another mitigation option?

6 A. Yes.

7 Q. Could you explain a little bit
8 about the dimming solution you mentioned earlier?

9 A. Sure. So what's been discussed
10 so far is a radar-activated system which is where you
11 have a remote radar that monitors the sky and
12 triggers, you know, has an on-off switch basically
13 all the lights and a central controller that can turn
14 off all the lights. That's what we've been talking
15 about. That's a relatively complicated system. A
16 simpler system that vendors are also offering is a
17 dimmable LED light where my understanding is that the
18 light intensity on these turbines is designed to work
19 on the, you know, that foggiest of nights, maybe not
20 the absolute foggiest, but they design it to work on
21 a night when it's pretty foggy or not very clear. So
22 what happens is on nights when it's relatively clear,
23 it's brighter than is actually necessary. So what
24 they do is you can buy a system that has a dimmable
25 LED light up there and it has a photo -- has a sensor

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2 that determines how -- what the visibility is that
3 night and it adjusts the brightness of the lights for
4 the visibility on that particular point in time so
5 you have lower impacts. And those systems are less
6 complicated and require less maintenance. They are
7 still costly. The lights are expensive.

8 Q. Do you have an idea of what the
9 additional cost would be for a dimming solution?

10 A. It appears that for a -- a site
11 like this one instead of \$2.8 million you might be
12 looking at \$1.5 million.

13 Q. And do you believe that that
14 would be a reasonable cost for substantial
15 mitigation?

16 A. I think that's more reasonable.
17 Again it's a question of the benefit.

18 Q. Is the cost of those primarily
19 related to the light itself?

20 A. I think you'll have to pay --
21 they charge -- the light is essentially the same. I
22 think it has -- you're paying extra for the dimmer
23 technology. You're paying some extra for the
24 controllers and you're paying some extra for the
25 sensors that have to be mounted on the turbines, but

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2 there is no radar unit.

3 Q. Is the sensor that sense how
4 clear it is?

5 A. Yes, but the maintenance is less
6 also, because the other one you have to have a radar
7 technician basically available to come out and work
8 on things. This one you don't have to have a radar
9 technician.

10 Q. Now, going back to the radar
11 estimate, the budget estimate that you received back
12 in 2018. You say in your testimony that 2 radar
13 units are likely required, can you explain why?

14 A. In the -- in the quote and I'll
15 admit it's not laid out, this needs to be researched
16 more, but with the vendor, but my read of this is
17 that a single radar would require -- single radar
18 solution would require an antenna that's outside of
19 the project area. And so that's an additional
20 installation cost to be able to get the cable further
21 out there. They seem to be suggesting that a two-
22 radar solution is more robust and can all be done
23 inside of the project area. So that's not been
24 resolved. I'd -- it's based on my experience I
25 expect it will probably -- you'd probably end up with

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2 the two radar solution is what I've assumed here.

3 Q. Do you know where the point
4 generally is outside the project area?

5 A. I do not. This is relatively new
6 technology. I've not seen it installed.

7 Q. But you didn't ask them whether
8 they would need to go?

9 A. No, we've not done that. That
10 clearly would have to be done to follow up on this
11 more.

12 Q. And that would inform you more on
13 what the cost would be?

14 A. Yes.

15 Q. But the proposal did say didn't
16 it that one radar unit could be effective?

17 A. It did say that.

18 Q. Regarding the 2 unit solution,
19 are there certain turbines that might add -- be a
20 much higher cost to -- to cover? What I'm asking is,
21 you know, if you had -- if you had all your turbines,
22 119, if you only needed the second unit to cover 10
23 of them or something like that, do you have any idea
24 whether that might be the case?

25 A. I don't.

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2 Q. Do you think that that would have
3 be worth checking into?

4 A. Absolutely, yes.

5 Q. One of the things that you
6 discussed in order to show the difficulty in the
7 project is the size of the project, correct? Because
8 there are so many turbines that requires --

9 A. Are you talking about the radar
10 system?

11 Q. Yes.

12 A. Yes, in the varied terrain and I
13 guess part of it as well.

14 Q. Now, regarding the size of the
15 project, doesn't the size of that -- the project
16 bring economies of scale in other areas?

17 A. Yes.

18 Q. And doesn't the size of the
19 project mean that many more lights will potentially
20 be viewable from the Canisteo Wind Project than
21 other projects?

22 A. Yes.

23 Q. Do you think that those are
24 potentially good reasons for strongly considering
25 radar activated lights?

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2 A. Again that's a cost benefit
3 question. I mean that's up to others.

4 (On the record)

5 BY MR. MULLEN: (Cont'g.)

6 Q. On the additional cost, speaking
7 of costs, the 975,000 and the 900,000 dollar cost for
8 installation and maintenance. How much time did you
9 take to estimate those costs?

10 A. Approximately two hours.

11 Q. Okay. And those costs were
12 estimated over for the maintenance costs and the
13 analysis in general over 30 years, correct?

14 A. Yes, it's a 30 year maintenance
15 cost.

16 Q. Have you divided that cost down
17 to a per megawatt per year cost?

18 A. No.

19 Q. Do you think that that would be
20 fairly simple to do?

21 A. Yes.

22 Q. And so if we divided -- so the
23 one -- the one radar unit solution, you have
24 estimated 2.4 million dollars, correct?

25 A. Yeah, that was correct.

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2 Q. Yeah. And so if we divided that
3 by 30 years, that would be eighty thousand dollars a
4 year, correct?

5 A. Okay.

6 Q. And then if we divided that by
7 290, it would be 276 dollars roughly, correct?

8 A. I'll trust your math, yeah.

9 Q. Okay. Per megawatt per year?

10 A. Yes.

11 Q. Okay. And is it possible -- it
12 is possible, isn't it that there are less than 119
13 turbines that are constructed in the project?

14 A. That's correct.

15 Q. And so if there were fewer
16 turbines, the -- there could be additional --
17 potentially additional cost savings from not having
18 to install much equipment, correct?

19 A. Yes. If you --

20 Q. And for maintenance?

21 A. Well, if we're looking at the
22 radar solution, it appears that the one item that's
23 linked to turbines is the cost of the light control
24 module which looks to be, you know, looks like if you
25 were down to 90 turbines, you might save 20,000

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2 dollars.

3 Q. And I'm assuming that there'll be
4 some installation savings wouldn't there? If you
5 don't have to install it on as many turbines?

6 A. We've actually not factored that
7 in because we have to install a light anyway. So
8 this is additional cost beyond what it cost to
9 install lights. So there is really -- those savings
10 are already covered.

11 Q. There were pretty -- it seems
12 like there would be maintenance cost savings from the
13 con -- a contract with the company?

14 A. Again, they gave us a fixed per
15 month cost.

16 Q. And that fixed costs was based on
17 a 122 turbines, correct?

18 A. Correct. Maybe they'd come back
19 and say it's slightly less but.

20 Q. Okay. Is it true that the cost
21 of the radar system would be less than the cost of a
22 turbine?

23 A. I can't answer that.

24 Q. Well --

25 A. The turbine --

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2 Q. -- we've talked about the --

3 A. -- turbine price is very
4 different.

5 Q. -- resale but let's compare it to
6 the resale value.

7 A. It's more money than the resale
8 value of a turbine.

9 Q. Well, and when you had estimated
10 the resale value, you have that 2.2 million, correct?

11 A. I -- I don't recall, but -- okay.
12 It's more than two -- 2.8 is more than 2.9.

13 Q. That'd be pretty close --

14 A. -- a 2 -- whatever. 2.8 is more
15 than 2.2, I'll grant you that.

16 Q. It'll be pretty close to the cost
17 of a used turbine?

18 A. Sure, yes.

19 Q. Okay. Do you agree -- do you
20 think that it's possible that radar-activated
21 lighting would substantially reduce the visual impact
22 during darkness hours?

23 A. I -- I think it's going to depend
24 on what type of night you're talking about. If this
25 is -- again, if we're talking about the LED lights

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2 which is almost certainly what we would use on this.
3 And if you're talking about less -- fewer impacts,
4 and if you're talking about those lights on a cloudy
5 night, you probably don't have much of an impact. So
6 it -- it varies. And -- and the term significantly
7 is -- I don't know who the right person is to be the
8 judge of that.

9 Q. But you -- so --

10 A. There is -- there is also
11 question for radar-activated lights. You know, how
12 often -- is it really going to be activated, you
13 know, --

14 Q. So do you think it's possible?

15 A. -- we all think there is not a
16 lot of plane traffic. I'm sorry. But, you know, we
17 haven't used these systems before. It might be that
18 you would spend 2.8 million dollars and it turns out
19 that it's very sensitive and it trips, you know, it
20 leaves the lights on 90 percent of the hours because
21 of the number of plane traffic around here. We just
22 don't know this. We don't have experience operating.

23 Q. Could you have already studied
24 that in a feasibility analysis?

25 A. Conceivably. But again, this is

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2 --

3 Q. You -- you could have, correct?

4 A. Sure.

5 Q. Have you researched the federal
6 aviation administration rules or procedure for
7 applying for radar-activated lighting?

8 A. I have not. Not personally, no.

9 Q. Okay. You've talked a little bit
10 about LED lights. Those -- those would be used
11 regardless of whether it's radar activated or not,
12 correct?

13 A. Correct.

14 Q. All right. And I -- I'm ready to
15 move away from the radar activated light question.
16 And I want to ask about light synchronization.

17 A. Okay.

18 Q. Have you looked into
19 synchronizing with other projects?

20 A. Yes.

21 Q. Which projects have you looked
22 into?

23 A. I've not looked into any specific
24 project. I think this is laid out in the application
25 that we talk about. I basically talked to some of

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the vendors to find out how that works. And what was explained to me is that the lights are -- the flashing is controlled by G.P.S. G.P.S. has location information and also timing information and basically it's as simple as you go into the turbine and you can set the light up there. It could go on every odd second. I don't actually know how many seconds they're on or off for. But you time, you set them all to go on and off on a certain, you know, pattern and you make sure that all the lights in your project would go up and you say if they're going to go off on, you know, the fifth second and last for two seconds, you set them all to be identical so the whole project lights up in synchronization.

It would seem to be a simple matter. And these are with newer turbines, you know, if you had another new project, it's most of them I understand are G.P.S. controlled now. It would be a simple matter technically to go up there and make that happen. It would be interesting, you know. I - - I can't control what NextEra does on the 8 point project, so I can't commit that we're going to synchronize with them and maybe another project. And

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2 Howard may not have G.P.S. lights because of the
3 vintage. So it's possible it will be hard to
4 synchronize with them. So technically it's seems
5 straight forward if you got new equipment.

6 Q. You are willing to at least look
7 into synchronizing the 8 point as well as Marsh Hill,
8 correct?

9 A. Correct.

10 Q. Okay. Regarding the letters of
11 credit now for decommissioning in general. Are you -
12 - is it your position that they -- the letters of
13 credit will not be provided until operations begin?

14 A. I don't exactly -- I don't recall
15 the exact trigger date, if you will, when the ---
16 when the security has to be in place.

17 Q. Okay.

18 A. It's often -- it's often
19 operations date.

20 Q. Okay. And are -- are you
21 familiar with the D.P.S. and the town's position that
22 they be provided prior to construction?

23 A. I don't doubt that. I'm sorry.
24 I don't have that one memorized.

25 Q. Well, is -- is there a

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2 substantial cost savings to not having them prior to
3 construction?

4 A. Substantial, I mean you would
5 have -- if you had to bid a -- put a bond in place,
6 you know, that's a certain cost, that's a percentage
7 of the cost of the decommissioning bond. Generally,
8 you like to have those once the project is up and
9 operating genera -- generating revenue during the
10 construction phase, you -- there is no revenue coming
11 in so you try to manage the costs as the best you
12 can.

13 Q. But --

14 A. But it -- it's a matter of moving
15 it forward, you know, 9 months, 12 months.

16 Q. But there will be towers standing
17 and infrastructure put in place?

18 A. Yes.

19 Q. And what would happen if those
20 towers were built and they were never powered?

21 A. You're asking from a
22 decommissioning standpoint I assume?

23 Q. Yes.

24 A. Yes. Well, our land contracts
25 would require us to have those removed.

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2 Q. But the letters of -- the letters
3 of credit would never go into effect with that?

4 A. If they were not put into effect
5 by the time. Yeah. If they're not put in effect by
6 C.O.D., correct. I think it's worth pointing out
7 that in lots of -- in other municipalities, not in
8 New York but in other states, it's pretty common that
9 decommissioning bonds not be required until the 10th
10 or 15th year of operation because it's understood
11 that the risk of the chance of a project like this
12 actually becoming obsolete is very low in the very
13 early years. And -- and that's not an uncommon
14 situation as where the decommissioning bonds are not
15 required until later in the project's life cycle.

16 Q. Speaking -- you are talking about
17 using -- you've proposed not to use the letters of
18 credit, correct, bonds?

19 A. I think we proposed a bond.
20 Because it -- I'm not a finance expert but my
21 understanding is with the letter of credit, you
22 basically have to have the money sitting in the bank
23 waiting there and not doing anything and if you have
24 a bond, you can, it's more flexible. You're still on
25 the hook for the money. Stood -- financially more

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2 flexible arrangement with the bond. Both of them
3 offer equal levels of protection.

4 Q. I -- I had -- I had thought you
5 had changed that at some point. And do you agree
6 that the security instrument should be active for the
7 life of the project?

8 A. Yes. As long as the
9 decommissioning money is required, yeah.

10 Q. Okay.

11 A. Yes. There should be security
12 available for the life of the project.

13 Q. Okay. And are you -- do you
14 believe that that should be adjusted periodically
15 that the -- the values of the security, correct?

16 A. Yeah. That's appropriate.

17 Q. And that would be intended to
18 keep cost estimates accurate and take inflationary
19 considerations into account?

20 A. Correct.

21 Q. Do you believe the towns should
22 be involved in that process?

23 A. The way things are envisioned in
24 New York, the towns are the ones who would hold the
25 decommissioning bond or security would be for their

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2 benefit. So they're in the -- they're in the loop in
3 this and so it makes sense for them to be involved,
4 yes.

5 Q. Okay. And do you think they
6 should be involved with determining reasonable
7 amounts of security?

8 A. Yes.

9 Q. Okay. And you had a pro --
10 provision that you had proposed, it stated that the
11 host town could draw fifty percent of the funds, if
12 you did not renew the security instrument prior to
13 its expiration date. Are you -- do you remember
14 that?

15 A. Actually, I'm not as familiar
16 with that. Was that in the original plan?

17 Q. Yes.

18 A. Okay.

19 Q. I didn't understand what that
20 meant. It seemed risky --

21 A. I -- I'd have to pull it up and
22 look at it. Thank you.

23 Q. All right. This is Exhibit 29 of
24 the application. Let's see what the matter number
25 was. And it's a DMM number 115.

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2 A.L.J. LEARY: Mr. Dax, do you happen
3 to have the Hearing Exhibit Number for this?

4 MR. DAX: Exhibit 29, that is part of
5 ex -- Hearing Exhibit 1.

6 A.L.J. LEARY: Thank you. Not
7 updated?

8 MR. DAX: Not updated in that sense,
9 but there had been elements updated both in Mr.
10 Miller's rebuttal testimony and in his surrebuttal
11 testimony, going to the topic of decommissioning.
12 The Applicant has moved some cases closer to the
13 town's positions on a certain elements of
14 decommissioning.

15 A.L.J. LEARY: Is this no longer --
16 excuse me, sorry.

17 MR. MULLEN: No problem.

18 A.L.J. LEARY: Is this no longer a
19 valid document in whole or in part?

20 MR. DAX: I -- I don't have it in
21 front of me. So I'll need to pull it up and look at
22 it.

23 A.L.J. LEARY: Do you want to take --

24 MS. O'TOOLE: Here we go.

25 A.L.J. LEARY: Ms. O'Toole was --

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2 MR. DAX: Wait, never mind, I was just
3 given --

4 A.L.J. LEARY: just handing you --

5 MR. DAX: -- I was just given, yeah,
6 this is -- this is no longer valid in its entirety.
7 It's no longer current. I don't want to say it's
8 invalid. It's no longer current.

9 A.L.J. LEARY: So are you saying we
10 have to -- I have to weed through -- the examiners,
11 I've to weed through Mr. Miller's rebuttal testimony
12 to figure out how this has changed?

13 MR. DAX: Well, you would -- you would
14 want to read the section called decommissioning which
15 is about one page long.

16 A.L.J. LEARY: So the answer to that
17 is yes?

18 MR. DAX: Yeah. Well, I -- no -- you
19 said read through. I don't accept read through. I
20 think you can zero in.

21 A.L.J. LEARY: I said weed.

22 MR. DAX: Yeah. Yeah. Read, you can
23 read to the --

24 A.L.J. LEARY: No, weed.

25 MR. DAX: Oh, weed.

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2 A.L.J. LEARY: W-E-E-D.

3 MR. DAX: You definitely don't need to
4 weed.

5 A.L.J. LEARY: Implying --

6 A.L.J. SHERMAN: She is a gardener.

7 MR. DAX: I garden too. In fact the -
8 - the weeds are growing right now.

9 A.L.J. LEARY: So --

10 MR. DAX: There -- there are elements
11 in -- I think if you looked at Mr. Miller's
12 surrebuttal testimony and if you look --

13 A.L.J. LEARY: I have read it.

14 MR. DAX: -- and if you look at page
15 36 of his rebuttal testimony, you'll see that
16 movement has been made, I would say in the direction
17 of the town's and the D.P.S.'s, position on certain
18 elements.

19 A.L.J. LEARY: Rebuttal or
20 surrebuttal?

21 MR. DAX: Both, his third page, 36 of
22 his rebuttal and all of his surrebuttal. And if you
23 would like us to provide a red line, I'm being
24 advised to offer that by my wise colleague here.
25 That we do that if we -- we make a red line to

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2 Exhibit 29 -- of the application Exhibit 29.

3 A.L.J. LEARY: Before you get there,
4 exhibit -- I'm sorry. Mr. Miller's rebuttal page 36?

5 MR. DAX: Yes. You'll see that he has
6 made -- he made -- he has made some changes in what
7 had been the applicant's position, right -- starting
8 right from the top.

9 A.L.J. LEARY: As to the resale value
10 of the turbines that --

11 MR. DAX: That and then he goes on to
12 say, "And we accept the requirement that letters of
13 credit be used to provide financial assurance to the
14 host town."

15 A.L.J. LEARY: Got it.

16 MR. DAX: And then there --

17 A.L.J. LEARY: That's an important
18 component. That's why I'm asking this very question.

19 MR. DAX: Right.

20 A.L.J. LEARY: Okay. So --

21 MR. DAX: And then the surrebuttal has
22 further shifts in the direction of the town's --
23 based on the town's decommissioning report.

24 A.L.J. LEARY: And he's got a table
25 here that changes some things I'm going to assume.

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2 Is that right?

3 MR. DAX: And you're talking about the
4 surrebuttal?

5 A.L.J. LEARY: No, no. I'm talking
6 about the rebuttal, bear with me. I just went by it.

7 MR. DAX: I don't think there is a
8 table in the decommissioning part of this -- of his
9 rebuttal testimony.

10 A.L.J. LEARY: Updated loss generation
11 estimates. Sorry.

12 MR. DAX: That's not in that, right.

13 A.L.J. LEARY: That's not --

14 MR. DAX: The -- the rebuttal
15 testimony only discusses decommissioning at pages 35
16 through 36.

17 A.L.J. LEARY: Okay. Letter of credit
18 -- okay. And it sounds like based on the other
19 testimony, I just read the numbers were not salvage
20 value but the actual numbers in terms of the value of
21 the --

22 MR. DAX: Mr. Miller has --

23 A.L.J. LEARY: -- turbines.

24 MR. DAX: -- has accepted not trying
25 to offset decommissioning costs with the resale value

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2 but is maintaining the position that we -- that
3 salvage value should still be an offset.

4 A.L.J. LEARY: Okay. Any -- anything
5 in the surrebuttal that we should note that is going
6 to sort of impact what I'm going to call application
7 Exhibit 29, which is part of Exhibit -- Hearing
8 Exhibit 1.

9 MR. DAX: That element I just referred
10 to --

11 A.L.J. LEARY: Yeah.

12 MR. DAX: -- which was agreeing that
13 the Applicant no longer seeks to offset the
14 decommissioning cost with a resale -- turbine resale
15 value. That's one. And then the numbers, the -- the
16 actual ed cost estimates that were first prepared by
17 the town's decommissioning expert and then Mr. Miller
18 reacted to them and -- and accommodated to some
19 extent those -- those numbers.

20 A.L.J. LEARY: Okay. Perfect.
21 Anything else?

22 MR. DAX: I think that's it.

23 A.L.J. LEARY: Okay. Well, Mr.
24 Miller, if it occurs to you where this sort of stands
25 right now in terms of how we should view exhibit --

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2 application Exhibit 29, just keep that in mind during
3 your testimony. Sorry, Mr. Mullen.

4 BY MR. MULLEN: (Cont'g.)

5 Q. Page -- we are talking about this
6 a 50 percent draw, if security lapses. It's on page
7 -- 29-5 is the page it's on.

8 A.L.J. LEARY: Do you need a copy?

9 THE WITNESS: I see it.

10 BY MR. MULLEN: (Cont'g.)

11 Q. Okay. Yeah. Can -- what does
12 that mean?

13 A. So I'm glad we had a discussion
14 to give me a chance to look at it and recall what
15 this is. So what this is -- when I have done these
16 before, we have obtained bonds to cover the
17 decommissioning amount and the -- you get a -- make
18 sure I get the structure right. But instead of going
19 out and getting a bond that's going to be in place
20 for 30 years you get a bond that's in place for, you
21 know, a year-and-a-half and you make sure there is a
22 requirement in there that you continue to get new
23 bonds. And so that there is always some overlap and
24 so the town always has protection.

25 And that struck -- you can set these

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2 up so that the town has protection and that they're
3 always covered and one of the ways you do that is you
4 make sure that if there is any elapse -- anytime if -
5 - if you ever allow the bond to lapse, the town's got
6 the authority to draw the money. Even if the
7 turbines have not been -- are still operating,
8 they're not decommissioned. That's a -- that gives
9 the town's the leverage to make sure the bonds are
10 constantly renewed. And that's what this is. This
11 is saying that if the bond was not renewed, that the
12 towns could draw 50 percent of the money. Trust me,
13 that's enough to scare the wind company in making
14 sure that they will always renew the bond. That's
15 the purpose of it.

16 Q. What -- what -- what happens,
17 suppose you're near end of life on the project and
18 just decide not to renew. Wouldn't the -- the towns
19 would only receive half of what the amount would be,
20 correct? The amount that they would need to
21 decommission if you walked away from the project?

22 A. I understand the scenario you're
23 laying out. And I don't -- I think the full
24 structure is not properly captured here and I think
25 that there is a way to set this up so that the towns

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2 are fully protected and the scenario you're laying
3 out doesn't happen. There is no intention here to --
4 to create loopholes and I think it could be set up to
5 prevent loopholes.

6 Q. Well, and even, you know, please
7 strike that question. Are you still -- so you still
8 are planning on having some provision like this but
9 you view it as a benefit to the town more than
10 yourself?

11 A. Yes. This provision is for the
12 benefit for the town. All we're proposing is that
13 there'd be a structure that ensures that if there are
14 security in place for the full term that's agreed
15 upon whether it's the start of construction or C.O.D.
16 for the life of the project. We agree there should
17 be security for that whole term. But there are
18 details that I think would need to be worked out with
19 the -- with the towns. And one of those things may
20 be we just -- we come back and we say it turns out
21 the market for a 30 year bond doesn't exist but here
22 is another way to do it where we have overlapping
23 bonds, we should be able to work that out.

24 Q. Okay. On decommissioning depth,
25 are you familiar with the recommendation from

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2 agencies that infrastructure would be removed down to
3 four feet in agricultural lands?

4 A. Yes, I recall seeing that.

5 Q. And you disagree with that,
6 correct?

7 A. Yes.

8 Q. Why?

9 A. It's a -- you know, it's a
10 relatively small matter but that's a significant cost
11 to remove another foot of concrete from the easement.
12 So you know, I'm not a farmer but generally three
13 feet for that small area shouldn't have that much of
14 an impact if -- once that's graded over. I would
15 think it would still be useful farming land with
16 something three feet below the surface.

17 Q. So it's --

18 A. That's the extent of it. I don't
19 want to make a bigger deal than it is. But if --

20 Q. Just primarily related to what
21 you think farm -- how low you think farmers need to
22 go?

23 A. That's right.

24 Q. Okay. And did you have any
25 expert basis for that or --

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2 A. No.

3 Q. Are you a farmer?

4 A. I said that at the beginning, I'm
5 not a farmer.

6 Q. Okay. I guess you did. Okay.
7 Regarding decommissioning roads.

8 A. Yes.

9 Q. One of the things that you
10 mentioned is that many of the land owners would like
11 them to remain there, correct?

12 A. Correct.

13 Q. Okay. Are you involved with the
14 negotiation process with the leases with the land
15 owners?

16 A. For many years I have been. I
17 did them myself. Now, I oversee that.

18 Q. Okay. And do you ever, in
19 negotiations with landowners, advise them that any
20 decommissioning they would need to worry about would
21 happen through the Article 10 process?

22 A. I just -- I'm not sure I
23 understand the question fully.

24 Q. Sure.

25 A. What -- what are you trying to

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2 get at?

3 Q. When you -- when you negotiate
4 with land owners, do they ever ask you about
5 decommissioning?

6 A. Yes, they do.

7 Q. And do you tell them that it's --
8 it'll happen through the art -- the Article 10 portal
9 will take care of that?

10 A. Now, that's what we would tell
11 them. In the past we would say, the town -- the town
12 law is going to take care of that. And you know, we
13 can look at town laws and see that that's being
14 contemplated.

15 Q. Okay. And then for --

16 A. I'm sorry. Can I back up to that
17 one? When people ask that question, we also point to
18 the -- you know, the contract which says, that if we
19 stop, when the contract terminates we have to remove
20 the facilities from the property. That's the first
21 line of defense for the landowners. The
22 decommissioning is a backup for them. They've got a
23 contract that says we have to remove things.

24 Q. And the mech -- the primary
25 mechanism that triggers decommissioning is when a

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2 turbine hasn't been active for 12 months, correct?

3 A. That's a pretty common provision,
4 yes.

5 Q. Okay. And what -- is there a
6 trigger that you have suggested be applied for
7 decommissioning the entire project? In other words,
8 if -- if two thirds of them stopped with -- would it
9 just be each individual turbine or --

10 A. I'm thinking now about the plans
11 we've written before. Usually it's a turbine-by-
12 turbine basis and usually the decommissioning terms
13 in a town hosts community agreement. If that's where
14 it's put, we'll say that if any turbine is inoperable
15 for X number of months, then you agree to a
16 decommissioning process where the town can ask for it
17 to be removed. The wind company would need to explain
18 if the turbine is operable or not, and if parts have
19 been ordered. If at the end of that process it is
20 decided that there is no hope of making a turbine
21 operable and that it has been abandoned, then
22 they can draw -- they can force use to remove it.
23 We don't remove it, they can draw the funds. So
24 there is many steps in there and usually those
25 steps are turbine by turbine not for

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2 the entire project.

3 Q. Okay. So in your decommissioning
4 estimates, do they assume that there are basically
5 scales built into their from a -- from a crew being
6 in the area doing multiple turbines?

7 A. I don't know the answer to that.
8 It's probably very likely that that's figured out in
9 there. But that's part of the -- that's part of the
10 decommission estimates usually, I think.

11 Q. So if it's generally done on a --
12 if -- if the plan is to decommission on a turbine-by-
13 turbine basis. Wouldn't it be better to base it on
14 the cost of doing -- bringing in a crew for one
15 turbine individually each time?

16 A. I think there was different
17 scenarios and I -- I see what you're getting. I
18 think I know what you're getting at. Maybe I
19 shouldn't -- my attorney would kill me if I answered
20 your question like that --

21 Q. Go ahead. Explain what --

22 A. -- you have to answer the
23 question. You have to ask me the question more
24 precisely or what's your question?

25 Q. Would -- wouldn't it be more

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2 accurate for you to base your estimate on
3 decommissioning individual turbines, mobilizing crews
4 for individual turbines instead of as a whole, if
5 you're not going to decommission the project as a
6 whole?

7 A. I think there is multiple
8 scenarios that could occur. You could have a
9 scenario where the entire project is being
10 decommissioned or you could have a scenario where
11 only one or two turbines were being decommissioned.
12 And you might have different estimates depending on
13 what scenario you're in.

14 Q. But and -- but your estimate is -
15 - your plan is for individual turbines, correct?

16 A. Yes, that's right. That's
17 usually what's written.

18 Q. How did you arrive at the -- the
19 amounts that you used for decommissioning cost
20 estimates?

21 A. They are based off an estimate
22 that we received for the Sheldon project that was
23 built several years ago, which admittedly is an older
24 estimate. So we took that and we scaled it up for
25 inflation and we also scaled it up for the size of

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2 turbines.

3 Q. Now, what about one of the things
4 that you mentioned in the radar-activated lighting is
5 the rugged terrain and the vast area of the Canisteo
6 Project. Would you take that into account?

7 A. No, I don't think that's a big
8 difference in this kind of an analysis because once
9 you get to the turbine site, you've got a crane pad,
10 you've got a, you know, things have been set in
11 places where there is fair amount of space to
12 construct them. So I -- I don't think there would be
13 significant differences there. It's from the people
14 that do radars that are not high off the ground in
15 trying to look over trees. They call this rugged
16 terrain or hilly terrain. Maybe not rugged but they
17 call it -- it's hilly to them but to a construction
18 guy with a crane, it's --- that's not as much of an
19 issue.

20 Q. It's not difficult to get the
21 cranes out of these -- into these areas?

22 A. There is a lot of work that's
23 gone into designing the roads to make sure the cranes
24 can get there.

25 Q. Your intent when these turbines

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2 are constructed is that all setbacks will be complied
3 with, correct?

4 A. That's correct.

5 Q. And those would be proved through
6 compliance filings?

7 A. Yes. That's my understanding.

8 Q. Okay. And to the extent that
9 there is a question about the classification of a
10 residence, that would be in compliance filings as
11 well?

12 A. I would expect so, yes.

13 Q. How did you determine whether a
14 residence was a type 1 through 4 residence? What was
15 your method for that?

16 A. So we developed categories for
17 the residences after consulting with the towns and
18 giving an idea of how it made sense to them, to
19 categorize things. And then we hired E.D.R., who
20 first digitized locations based on aerial mapping and
21 then they went out in the field and observed them and
22 as of you know, base case, they assume that things
23 are category 1 year round residences, unless they
24 find evidence that would help them justify it being
25 categorized down as a lower -- for a lower use or a

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2 higher category.

3 Q. What kind of evidence would --

4 A. Well, for instance, what's
5 called a category 4 in our terminology is a house
6 that's dilapidated. So if you drive by and you see
7 that the roof has caved in and there is a tree
8 growing up and I'm not making -- kind of the middle
9 of the building, I'm not trying to make a joke. You
10 see a lot of that. That's pretty clear they're
11 category 4, that's uninhabitable.

12 Q. And -- and you mean --

13 A. But we leave it in there as a
14 category 4 because we want to make sure that nobody
15 looks at a map and says, uh-huh, I see there is a --
16 there is something there and you haven't put a dot
17 there. We want to make sure that's a dot. So we at
18 least know that that's been looked at.

19 Q. And by the dilapidated you don't
20 mean a disgusting living condition or something like
21 that. You just mean you can't live in there,
22 correct?

23 A. Correct.

24 Q. Okay. Regarding compliance
25 filings, will the -- will the -- are you intending

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2 that if the compliance filing that you've proved that
3 all the leases that you need for setbacks and
4 everything were obtained?

5 A. Yes.

6 Q. Okay. Are you familiar with the
7 law that was recently passed in Canisteo?

8 A. Yes. But you're not going to
9 quiz me on the specifics of that, right?

10 Q. No, I don't -- I don't intend to,
11 other than whether you plan to meet those new
12 setbacks.

13 A. We will meet the setbacks. There
14 are some of the turbine sites we may not be able to
15 build. So but the project, once we propose it, we'll
16 meet the setbacks.

17 Q. Okay. I don't -- I don't think
18 that this is in the record yet. So I would like to
19 pass these out and enter them in if --

20 A.L.J. LEARY: Okay.

21 MR. DAX: So it have been filed with
22 the state? Is something filed yet? We're waiting
23 for him to file it so we can send it in, it's not
24 with the state.

25 A.L.J. LEARY: Okay.

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2 MR. MULLEN: Do you have a copy of
3 this Judge?

4 A.L.J. SHERMAN: No. Has this been
5 filed with the state yet?

6 A.L.J. LEARY: Not yet. If you want
7 to clarify it.

8 MR. MULLEN: Yeah. That -- that -- I
9 don't believe that the clerk from the Town has filed
10 this with the state yet, but it's in --

11 THE REPORTER: It's been passed.

12 MR. MULLEN: Yeah. It's -- it's been
13 passed by the board and it's -- they will soon be
14 filed with the state.

15 MR. DAX: This is going to go past
16 5:30, right? I need to cancel that, if it's
17 important.

18 MR. MULLEN: Was that -- what would be
19 the exhibit number you have for that?

20 A.L.J. LEARY: I think I'm up to 2 --
21 pardon me, for not paying quite as much attention.

22 A.L.J. SHERMAN: 224?

23 A.L.J. LEARY: That's right. 223, do
24 we have 223?

25 MR. MULLEN: We have 223.

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2 MS. O'TOOLE: Yes.

3 A.L.J. LEARY: 224. Yeah, 223 is
4 Sharkey-05 or 010 -- 010.

5 MR. MULLEN: Okay. And I don't intend
6 to ask Mr. Miller further questions on this but just
7 it could be helpful for the record to note that the
8 setbacks are primarily pages ten and eleven.

9 A.L.J. LEARY: So this has not been
10 filed with the secretary of state.

11 MR. MULLEN: Correct.

12 A.L.J. LEARY: This was passed on --

13 MS. O'TOOLE: 12th.

14 MR. MULLEN: Was it 12th, August 12th?

15 A.L.J. LEARY: Where is that in this
16 document?

17 MR. MULLEN: That it was --

18 MR. DAX: This -- this doesn't have
19 that the -- the precursor document that gets filed
20 with the secretary of state that has that
21 information.

22 A.L.J. LEARY: I would ask that you, I
23 --

24 MR. MULLEN: We submit that.

25 A.L.J. LEARY: -- the date of this --

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2 MR. MULLEN: Okay.

3 A.L.J. LEARY: -- document is not
4 evident from the face of it but I believe as Mr. Dax
5 is pointing out that additional information would be
6 on the secretary of state's filing. So can you --
7 when you have that available, get that and we'll
8 collectively call this Exhibit 224.

9 MR. MULLEN: Yeah.

10 A.L.J. LEARY: It's -- you have it --
11 you have that available or it's not?

12 MS. OKLEVITCH: It will be available
13 by next week, I need the clerk to sign off on it.

14 A.L.J. LEARY: Okay. So just
15 everybody note that this will have a cover page. So
16 it will have the date on which this local law number
17 one of 2019 was passed. Can you tell us when it was
18 passed by --

19 MS. OKLEVITCH: August 12th.

20 A.L.J. LEARY: 8/12 and that was
21 enacted by the Town Board of the Town of Canisteo?

22 MS. OKLEVITCH: Yes.

23 A.L.J. LEARY: And it's called local
24 law number one of 2019 "Wind energy facilities."

25 MR. DAX: Correct.

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2 MR. MULLEN: And once it's filed, we
3 will update Exhibit 31.

4 A.L.J. LEARY: Okay. Perfect. That
5 was my next request. Is it just the Town of Canisteo
6 or are other towns considering a similar local law?

7 MR. MULLEN: The Town of Cameron is
8 also considering a new law. It's not going to impact
9 the project the way that the Canisteo law does
10 though.

11 A.L.J. LEARY: Okay. Thank you. Do
12 you want to go ahead?

13 MR. MULLEN: Sure.

14 BY MR. MULLEN: (Cont'g.)

15 Q. Mr. Miller, did you listen to the
16 shadow flicker testimony that was given earlier?

17 A. I did.

18 Q. And one of the questions that Mr.
19 Runner couldn't answer was your -- about your
20 intended mitigation procedure. Could you explain a
21 little more about what your intentions are?

22 A. Yes. So if you look at Exhibit
23 EMR-1 which is our proposed conditions to a siting
24 certificate, these are the conditions that -- it is
25 worth giving some background. These are the

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2 conditions that were originally attached with my --
3 when we submitted the application with some
4 additional red lines based on requests, based on
5 review of D.P.S. suggested conditions.

6 So this is our version that we would
7 agree to as of now and it does not cover everything
8 that there is things that we have not agreed to
9 D.P.S. on. So those don't show any changes here.
10 But if you turn to page 8 and look at condition
11 number 57 that basically summarizes what we would
12 propose for shadow mitigation.

13 Q. And at what points would you
14 consider curtailment?

15 A. So what -- what we are
16 suggesting, what we propose and this is based on what
17 happened at other projects, is it's -- it's pretty
18 common. You may have a house where you're predicted
19 to have more than 30 hours of shadows per year on
20 average but it turns out the person who lived there
21 doesn't really notice or even it's not a complaint
22 problem. It's either the shadows occur at a time of
23 day when they're not there, which is pretty common or
24 it turns out the shadow hits the roof or the wall of
25 the house. It doesn't go in the house and nobody

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2 notices it so it's not an issue.

3 So what we're proposing is that if
4 someone files a complaint about shadows and it's a
5 house that is one that's predicted to have more than
6 30 hours of shadows per year and it's a non-
7 participant, then we need to mitigate that. And in
8 that scenario there would be two different mitigation
9 options, really three, one of them would be is if
10 they wanted to be a participant we could work out
11 some kind of agreement but if that doesn't work, then
12 you work out a way to block the shadows, which is we
13 install plants or -- or blinds.

14 But also we should leave open the
15 option of some kind of curtailment, which is to my
16 knowledge an unproven technology, but we're open to
17 trying to, you know, if that's available, we would do
18 that. But I think you need to have the flexibility
19 to either do the vegetation and the blocking or doing
20 the curtailment in case the technology is not
21 available to do the curtailment.

22 A.L.J. LEARY: So who decides which
23 mitigation? Who is that? So does the homeowner say
24 I don't want blinds in my house and I want to be able
25 to look out and I want plantings or I want

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2 curtailment?

3 THE WITNESS: We worked that out with
4 -- with the homeowner and -- and --

5 A.L.J. LEARY: How --

6 THE WITNESS: -- it goes into -- well,
7 I'm saying --

8 A.L.J. LEARY: So yeah, that --

9 THE WITNESS: We work that out and
10 it's between us and the homeowner. And if they
11 really say -- we've had a variety of situations,
12 we have some people that say I only want plantings
13 and then they'll say, I don't really want the plants.
14 I want the check. And then sometimes we see that
15 plants never get planted. It's what they decide.

16 A.L.J. LEARY: For -- for -- put aside
17 the check for a second. In the wind projects that
18 you've been involved in with, how many shadow flicker
19 disputes or complaints do you have that are -- and
20 how are they resolved? So what's -- how many times
21 have you actually curtailed is my question. If they
22 -- if they don't want it.

23 THE WITNESS: Again, curtailment
24 technology does not exist to my knowledge. So no one
25 has ever implemented a shadow -- I don't -- we've

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2 never implemented shadow curtailment technology. So
3 what we've -- we --

4 A.L.J. LEARY: No, when I say
5 curtailment, I'm talking about you shut the turbine
6 down so that the flicker doesn't happen. I thought
7 that's what you meant.

8 THE WITNESS: It is what I mean and
9 the way, it's talked about here is a technical
10 curtailment where you would actually -- you would
11 have software that would track how many hours
12 shadows, you know, the turbine has been in a certain
13 orientation and the shade, the sun has been out. And
14 so that that you know that there was a shadow falling
15 on a certain receptor in that year And when it gets
16 to a basic counter and you know how many hours have
17 occurred at that receptor that out -- that year and
18 when it gets to a point where the conditions are such
19 that shadows could occur again and you're over 30, it
20 would stop the turbine.

21 A.L.J. LEARY: It's an automatic
22 curtailment. I'm --

23 THE WITNESS: Correct.

24 A.L.J. LEARY: -- I get that.

25 THE WITNESS: Manual curtailment is

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2 not practical to have someone that's -- I've not ever
3 heard of that being implemented. If that's what you
4 suggested.

5 A.L.J. LEARY: Okay. So anytime
6 somebody doesn't want money and they don't want
7 blinds and they -- they don't want you to put
8 whatever trees up or that may work. There is no
9 other option, if they don't want any of those things,
10 you're not going to shut that turbine down?

11 THE WITNESS: That's correct.

12 A.L.J. LEARY: Okay. So I --

13 THE WITNESS: But we -- but we --

14 A.L.J. LEARY: -- misunderstood the
15 three options here. I option -- that third option
16 isn't an option, curtailment is not an option. Is
17 that what your testimony is?

18 THE WITNESS: No, that's not my
19 testimony. That's --

20 A.L.J. LEARY: Okay. Tell me how you
21 got -- you do curtailment as an option.

22 THE WITNESS: Right now, it's not
23 something we do. What we're suggesting is in the
24 future, we will do this. If it's technically
25 feasible we have -- we would suggest that it be in

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2 the -- in the conditions that that be one of the
3 solution measures that we use.

4 A.L.J. LEARY: Yeah. But only if
5 technically feasible, if it's not technically
6 feasible today, it doesn't exist. It's like saying -
7 -

8 THE WITNESS: But this is -- this
9 would --

10 MR. MULLEN: Can I ask a question?

11 A.L.J. LEARY: You don't have
12 technical feasibility for curtailment, right? That
13 you're referring to as your third option. That's not
14 a real option if it's not technically feasible.

15 THE WITNESS: I respectfully disagree.
16 This is something that could be developed in the
17 future. It's -- and to -- to ignore it and say it
18 can't be developed is -- is ignoring things that can
19 be improved upon.

20 A.L.J. LEARY: Who is working --

21 THE WITNESS: This is -- with the same
22 logic we would say we shouldn't install radar-activated
23 FAA lights because we haven't done that. I think that we
24 should look forward in building things that are possible.

25 A.L.J. LEARY: Okay. I'm sorry to

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2 keep going on this but it's -- I want the record to
3 be clear that there is a third option that's called
4 curtailment. And today as we speak, it is not
5 technically feasible but somebody might be working on
6 it.

7 THE WITNESS: To my knowledge, I --
8 there might -- I -- I'm not saying I know every
9 turbine vendor and every technology we've had. I've
10 been told by our people that are buying the turbines
11 right now that it's not an option that's -- that's on
12 the table now. It might be with other vendors.
13 Okay.

14 A.L.J. LEARY: Okay. So that third
15 option isn't really an option and that part of the
16 application doesn't seem to me to be correct. Am I
17 missing something here?

18 MR. DAX: Yes. You're missing what
19 Mr. Miller said, it's an option that that is premised
20 on the development of technology that may occur and
21 may be motivated by the very thing we're talking
22 about. Complaints about excessive shadows over 30
23 hours. So I mean, this -- this is a -- this is a
24 development -- developing industry. I mean, it's,
25 you know, we've heard today about --

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2 A.L.J. LEARY: Is anybody working on
3 this in the industry?

4 MR. DAX: I think Mr. Miller said they
5 may be.

6 A.L.J. LEARY: Well, I'm asking are
7 they, I'm not maybe, no crystal ball here. I left
8 that at home.

9 THE WITNESS: Well, I'm sorry.

10 A.L.J. LEARY: Are they working on it?

11 MR. DAX: May I ask --

12 THE WITNESS: You're putting me in a
13 position to say something definitive but that's
14 something I'm not an expert on.

15 A.L.J. SHERMAN: If I'm asking you a
16 question. You have an engineering background?

17 THE WITNESS: Yes.

18 A.L.J. SHERMAN: From an engineer's
19 perspective, is it feasible that this could be
20 developed?

21 THE WITNESS: Absolutely.

22 A.L.J. SHERMAN: Thank you.

23 A.L.J. LEARY: But how quickly could
24 it be developed?

25 THE WITNESS: It's probably a matter

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2 of how much money you're going to spend on it. I
3 don't know the answer to that. This is probably
4 something that can be developed in a matter of a
5 year, there's probably prototype systems that are out
6 there right now. And we have one --

7 A.L.J. LEARY: Okay. But we don't
8 know --

9 THE WITNESS: -- vendor that's talking
10 about it as an option.

11 A.L.J. SHERMAN: Okay. Got it.
12 Sorry, Mr. Mullen.

13 MR. MULLEN: I just -- I had a follow
14 up question on that actually. Yeah. It was helpful.

15 BY MR. MULLEN: (Cont'g.)

16 Q. Do you -- could you program --
17 and you generally know when the times of day that
18 flicker occurs, right?

19 A. Yes. It's very easy to predict
20 this. There is software that does that that --

21 Q. So could you --

22 A. -- Mr. Runner runs.

23 Q. -- so couldn't you program a
24 turbine to stop operating at the predicted times
25 based on when the sun is going to come up and go

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2 down?

3 A. That's exactly what we're talking
4 about. But there is some more subtleties that make
5 it a little bit more complicated. But that's
6 basically the technology that needs to be developed.

7 Q. You're not able to do that now.
8 You're not able to program it for known times, known
9 sunrise and sunset times and whatnot?

10 A. So are you suggesting the
11 turbines would -- so you have to worry about what
12 distance would every turbine be shut down at sunrise
13 and sunset?

14 Q. No, in a complaint, if you have a
15 complaint.

16 A. Well, that's --

17 Q. That's what we're talking about.

18 A. It is what we're talking about.
19 I don't think it's that difficult a technology to
20 implement. It's just -- there is -- there is not a
21 huge market for this. And you're asking for a custom
22 software solution that's not been developed. I
23 recall, you know, when we first started curtailing
24 for bats that was talked about as something you could
25 do but the vendors had not rolled out software that

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2 actually curtailed automatically and it took a while.
3 And trust us, they charged us for that technology we
4 had -- we paid them to develop that and it's not that
5 it couldn't be done, it's just it's the same
6 situation. It's slightly more complicated but it
7 could be done.

8 Q. So you don't, right now, have the
9 ability to type into a computer and say this -- this
10 turbine is not going to operate for fifteen minutes
11 today on a predicted time of day?

12 A. I'm sure it could be done
13 manually. I don't know the answer. I really don't
14 know the answer. How the operation software works.
15 It seems pretty likely but I don't know.

16 Q. Likely that you could do it?

17 A. Yeah.

18 Q. Okay.

19 A. If I could go back, there was one
20 question about it. You know, how often we had these
21 issues. Roughly, I think that some of the projects
22 in New York, we have probably had like 5 to 10 shadow
23 complaints in total and probably half of those been
24 -- have been resolved with plantings or -- and the
25 other half had been resolved with blinds. Yeah --

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2 yeah, probably closer to 5.

3 MR. MULLEN: Thank you. I don't have
4 any other questions.

5 A.L.J. LEARY: Okay. Who else has
6 questions for this witness, Ms. Vigars?

7 CROSS EXAMINATION

8 BY MS. VIGARS:

9 Q. Mr. Miller, just initially I'd
10 like to ask a clarifying question. We were just
11 engaging in questioning and discussion about the
12 Applicant's proposal to temporarily con -- curtail
13 operation of select wind turbines if complaints are
14 received. Do you recall that?

15 A. Yes.

16 Q. Okay. Can you clarify and
17 confirm that you refer -- what you're referring to is
18 certificate condition fifty-seven that is proposed in
19 your exhibit EM-1. Do I have that correct?

20 A. That's correct.

21 Q. Okay. So to confirm in your
22 Exhibit EM-1, certificate condition 57 references or
23 states that if a complaint is received, option 1 is
24 temporarily curtail operations, select wind turbines
25 to limit actual annual shadows. Is that correct?

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2 A. Correct.

3 Q. Okay. So your testimony today is
4 that technology is not currently available to the
5 best of your knowledge?

6 A. That's correct.

7 Q. Okay. Thank you. One other
8 clarifying question based on Mr. Mullen's prior
9 questioning. I'd like to direct you to your rebuttal
10 testimony, page 36.

11 A. Okay.

12 Q. Lines 1 through 4.

13 A. Again, are we talking about the
14 redacted or the un-redacted version? Because the
15 lines are different?

16 Q. Un-redacted.

17 A. All right. Then --

18 Q. All right.

19 A.L.J. LEARY: Why don't you look at
20 the confidential but do not talk about any of the
21 confidential provisions.

22 MR. VIGARS: Yes.

23 A.L.J. LEARY: Is that okay?

24 MS. VIGARS: My question is not about
25 confidential information.

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2 A.L.J. LEARY: Okay.

3 MS. VIGARS: Okay.

4 MR. DAX: Just -- for the record --

5 MS. VIGARS: No, it's okay.

6 A.L.J. SHERMAN: I'm sorry. You just
7 tell where it is? I'll find it.

8 MS. VIGARS: It's under --

9 MR. DAX: I -- I -- just for the
10 record I -- the confidential does not have different
11 page numbering and despite Mr. Miller's assumption.
12 It's funny.

13 A.L.J. LEARY: Okay.

14 MR. DAX: I think you -- I think you
15 may have printed out on a different --

16 MS. VIGARS: Okay.

17 MR. DAX: -- printer font copy so I
18 would refer you to the package I gave you this
19 morning. If you want to track exactly where --

20 THE WITNESS: Okay.

21 MS. VIGARS: I can clarify the section
22 of the testimony as well.

23 A.L.J. LEARY: What page are you on
24 Ms. Vigars, again?

25 MS. VIGARS: I'm on page 36.

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2 A.L.J. LEARY: Okay.

3 MR. DAX: It's de -- decommissioning,
4 right?

5 A.L.J. LEARY: Decommissioning?

6 MS. VIGARS: Decommissioning panel.

7 A.L.J. LEARY: Okay.

8 THE WITNESS: Okay. I think I'm
9 there.

10 BY MS. VIGARS: (Cont'g.)

11 Q. So the heading of this section is
12 D -- D.P.S. decommissioning panel. The question
13 reads, the D.P.S. decommissioning panel does not
14 agree with the following aspects of C.W.E.
15 decommissioning plan ... I will not read the full
16 question. If you turn to the answer that immediately
17 follows that question. Could you please read into
18 the record the first -- first sentence of your answer
19 in your written testimony, I have it as lines 1
20 through 4 on page 36?

21 A. Okay. Tell me, if I'm at the
22 right place. We accept the criticism of accounting
23 for resale value of turbines but not salvage value.

24 Q. That's correct. Can you continue
25 reading please?

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2 A. In developing the decommissioning
3 cost estimate and we accept the requirement that
4 letters of credit be used to provide financial
5 assurance to the host towns.

6 Q. Thank you. Would you agree that
7 your tests -- your pre-filed testimony states that
8 Canisteo Wind has accepted the requirement that a
9 letter of credit be used to provide financial
10 assurance to the host towns?

11 A. Unfortunately, I agree.

12 Q. Thank you for acknowledging your
13 testimony and what it states. Is it your testimony
14 today that Canisteo Wind has changed its position
15 with regard to letters of credit?

16 A. Yes. Well, hold on. What -- can
17 you rephrase the question for me? I like to strike
18 that.

19 Q. Is your testimony today that
20 Canisteo Wind is willing to enter into a letter of
21 credit or execute a letter of credit versus a bond
22 and I'm -- I need to seek clarification for the
23 record on whether your test -- your pre-filed written
24 testimony is accurate as to the acceptance of letter
25 of credit requirement or if that has subsequently

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2 changed?

3 A. Would it be appropriate for me to
4 confer with Mr. Dax on this very quickly.

5 A.L.J. LEARY: Listen --

6 MR. DAX: No, you --

7 A.L.J. LEARY: This says what it says.

8 MR. DAX: Right, I agree.

9 A.L.J. LEARY: And if you want to
10 change it --

11 MR. DAX: It says what it says.

12 A.L.J. LEARY: -- you can't change it.

13 THE WITNESS: No, I'm not trying to
14 change my testimony.

15 A.L.J. LEARY: At this point with that
16 -- okay.

17 MS. VIGARS: Thank you.

18 BY MS. VIGARS: (Cont'g.)

19 Q. So the discussion about a bond in
20 your prior testimony today, you would revise that
21 testimony?

22 A. We can just say that was
23 background testimony. How about that? Background
24 information.

25 Q. Okay. I'd like to make sure the

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2 record is clear on this issue. Okay. Do you have
3 any other questions?

4 A.L.J. LEARY: You're going to be here
5 for another week or two. This is --

6 MR. DAX: It was -- it was resolved
7 when I asked him if his testimony was truthful and
8 accurate and he said it was. I didn't think we
9 needed to go beyond that.

10 MS. VIGARS: Subsequent discussion in
11 quests -- responses to questions indicated otherwise
12 --

13 A.L.J. LEARY: I want the record to
14 reflect that there's a little bit of humor going on
15 in the room about this. This isn't exactly everybody
16 having a straight face. It's late in the day. We're
17 kind of laughing about this but let's go. Who else
18 has --

19 MS. VIGARS: Okay. I have a one
20 follow-up question on access roads.

21 BY MS. VIGARS: (Cont'g.)

22 Q. In your rebuttal testimony, you
23 discussed access roads, access roads are also
24 discussed in Exhibit EM-1. Would you agree with
25 that?

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2 A. In EM-1, is that --

3 Q. I'm sorry. Exhibit EM --

4 A. The surrebuttal?

5 Q. No, not the surrebuttal. I'm
6 referring to your rebuttal testimony. So the -- so
7 Canisteo Wind's proposed certificate conditions, the
8 red line document --

9 A. It's actually that --

10 Q. -- EM-R1.

11 A. That's actually what's surprising
12 me. Is it in the conditions?

13 Q. Access roads are discussed
14 throughout the certificate conditions. I can point
15 you to a specific section if you like.

16 A. Okay. Can you do that?

17 Q. Sure. So for example, an
18 attachment A to EM-R1, item 1, site plans, subsection
19 B, discusses access road plans.

20 A.L.J. LEARY: You're going a little
21 too fast.

22 THE WITNESS: In attachment A, you're
23 saying?

24 BY MS. VIGARS: (Cont'g.)

25 Q. In attachment A, yes.

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2 A. Yes, of course. All right, yes,
3 it's in there. I agree.

4 Q. So it is page 21 of the P.D.F.
5 document.

6 A.L.J. LEARY: And this is attachment
7 A?

8 MS. VIGARS: Yes.

9 BY MS. VIGARS: (Cont'g.)

10 Q. Can you please provide for us the
11 approximate proposed mileage of access roads for the
12 facility and what I mean by that is total proposed
13 access roads.

14 A. I don't have that number
15 memorized. I'm sorry.

16 Q. Would you be willing to provide
17 that number after review of your files?

18 A. Yes.

19 A.L.J. LEARY: Mr. Dax, is there
20 anything in the record that would reflect the total
21 number of miles of access roads being built?

22 MR. DAX: I recall that there is but I
23 assure this I can't --

24 A.L.J. LEARY: Okay.

25 MR. DAX: -- point it right now

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2 because it's buried in another document that -- I
3 think there is -- I recall seeing it, a linear foot
4 number.

5 A.L.J. LEARY: Okay.

6 MS. VIGARS: So D.P.S. staff believes
7 that it's not identified specifically in another part
8 of the application.

9 A.L.J. LEARY: It is not.

10 MS. VIGARS: It is not. So and,
11 again, I could stand corrected, it may be buried
12 somewhere. And so what we're interested in obtaining
13 is the Applicant's explanation of their total
14 proposed access road miles that they contemplate for
15 this project.

16 A.L.J. LEARY: How do we resolve that
17 on this record?

18 MR. RUNNER: We took a short break.
19 We could probably come up with another time.

20 A.L.J. LEARY: Another --

21 MR. DAX: I could remember.

22 A.L.J. LEARY: We need it. It's 5:30

23 --

24 MS. VIGARS: We could --

25 A.L.J. LEARY: Okay. Let's take a

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2 quick break and if you can do that, I would like that
3 on the record.

4 (Off the record, 5:29)

5 MS. VIGARS: Can I propose an
6 alternative if the applicant would be willing to
7 insert that information into --

8 A.L.J. LEARY: That's goes without
9 saying.

10 MS. VIGARS: -- attachment A-1,
11 Section B --

12 MR. DAX: Into --

13 MS. VIGARS: Okay.

14 MR. DAX: -- into what?

15 MS. VIGARS: Into attachment A,
16 Section 1, subsection B, to identify the proposed
17 total mileage access road miles for the project.

18 MR. DAX: I -- I don't think it
19 belongs in attachment A.

20 A.L.J. LEARY: Okay. Let's not get
21 into this discussion --

22 MS. VIGARS: Okay.

23 A.L.J. LEARY: -- right now. What I'm
24 going to ask you to do is take a brief break. I hear
25 someone in the back of the room might have this.

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2 MR. DAX: Right.

3 A.L.J. LEARY: And let's get it on the
4 record and then you guys can talk tomorrow about
5 whether it goes in there or --

6 MR. DAX: Okay.

7 MS. VIGARS: Yes.

8 A.L.J. LEARY: -- where it goes or any
9 of that. Is that workable?

10 MR. DAX: That's fine.

11 A.L.J. LEARY: Okay. Great.

12 MS. VIGARS: That works.

13 A.L.J. LEARY: Before we go back on
14 the record -- on the record --

15 (On the record, 5:38)

16 THE REPORTER: We're back.

17 A.L.J. LEARY: And Ms. Vigars, can you
18 elicit this testimony?

19 MS. VIGARS: I will do my best.

20 A.L.J. LEARY: Okay.

21 BY MS. VIGARS: (Cont'g.)

22 Q. Mr. Miller, can you please
23 indicate the approximate proposed mileage of access
24 roads for the facility?

25 A. There are approximately 42 miles

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2 of access roads in the facility as proposed. That's
3 for the 117 turbine layout that was shown in the
4 updated application. Did I read that right here --

5 Q. Thank you.

6 A. -- updated application.

7 Q. You did. The updated
8 application, I'm trying to find the exhibit
9 reference.

10 MR. DAX: Hearing Exhibit 7.

11 BY MS. VIGARS: (Cont'g.)

12 Q. Hearing -- being Hearing Exhibit
13 7. Yes?

14 A. Correct.

15 Q. Thank you, thank you. Following
16 up on a question previously raised by Mr. Mullen's
17 questioning related to cumulative effect. I'm sorry,
18 cumulative impact. You mentioned that cumulative
19 impact means different things to different people.
20 Can you explain what it means to you?

21 A. I know the term -- I am told the
22 term commute -- cumulative impacts is used in NEPA
23 analysis, which is a different type of review than
24 what we're talking about here. I'm only familiar
25 with it as it's been used in some of these

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2 discussions where people want to add impacts on top
3 of -- on top of impacts that our project might have
4 which are really more marginal impacts. They don't -
5 - they don't become added -- they don't become
6 greater than the sum of the two impacts.

7 Q. So in your rebuttal testimony on
8 page 28, you use the phrase cumulative impacts. Can
9 you tell us what your meaning is when you use the
10 phrase cumulative impacts in your -- in your rebuttal
11 testimony?

12 A. This is referring to the concept
13 that is used in these review, in these Article 10
14 reviews where it suggested that a project such as
15 Canisteo should be responsible for impacts created by
16 other wind farms.

17 Q. Okay. Turning to the topic of
18 lighting, we previously discussed dimmable lighting.
19 Do you recall that?

20 A. Yes.

21 Q. Can you provide the name of the
22 vendor or manufacturer for dimmable lighting that you
23 referenced earlier in your testimony?

24 A. I could open my computer and
25 search for emails to find that. I don't have that

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2 off the top of my head.

3 MS. VIGARS: D.P.S. would like the
4 witness to provide that information. I'm not sure
5 what the best way to go about doing that.

6 MR. DAX: Mr. Miller is endeavoring
7 right now.

8 MS. VIGARS: Okay.

9 THE WITNESS: I believe there is a
10 company called Technostrobe, T-E-C-H-N-O-S-T-R-O-B-E.
11 Technostrobe.com.

12 MR. DAX: Are you sure that's the
13 right email?

14 BY MS. VIGARS: (Cont'g.)

15 Q. Can you confirm for me whether
16 you received a quote from a company for dimmable
17 lighting?

18 A. Yes, I can confirm that.

19 Q. You did receive a quote?

20 A. Yes.

21 Q. And what company did you receive
22 a quote from?

23 A. Technostrobe.

24 Q. Thank you. Turning to a
25 different topic related to shadow flicker. Can you

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2 please clarify your response regarding shadow flicker
3 monitoring and -- and curtailment technology? Do you
4 assert -- strike that. Is it your testimony that
5 there are no manufacturers that have flicker control
6 technology?

7 A. No. I'd like to clarify that.

8 We --

9 Q. Please clarify.

10 A. We purchase a lot of equipment
11 from General Electric. My understanding is that G.E.
12 does not offer that technology at this point in time.
13 I understand that other vendors do offer that
14 technology. I don't know the status of that and I've
15 not reviewed that. So I don't want to advocate for
16 it as being ready for operation but my understanding
17 is other vendors are working on it. I think Vestas may
18 have a version of that technology.

19 Q. Is that technology from Vestas,
20 for example, compatible with the G.E. turbines that
21 are proposed here, if you know?

22 A. I don't know but I would highly
23 doubt it.

24 Q. Okay.

25 A. Those are not two companies that

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2 want to -- want to play nice and share software.

3 Q. Okay. All right. Good.

4 MS. VIGARS: We have no further
5 questions at this time. Thank you.

6 A.L.J. LEARY: Okay. Ms. O'Toole, do
7 you have questions for this witness?

8 MS. O'TOOLE: I do, Your Honor.

9 A.L.J. LEARY: Okay.

10 CROSS EXAMINATION

11 BY MS. O'TOOLE:

12 Q. Mr. Miller, could you look at
13 Hearing Exhibit 224, private local law number -- wind
14 energy facilities?

15 A. Are you referring to the Canisteo
16 law that Mr. Mullen passed around?

17 Q. Yes.

18 A. Okay. I have that.

19 Q. Could you turn to page 8 of that
20 document, please? Let me know when you're there.

21 A. I'm there.

22 Q. Do you see Section 12 entitled
23 "Standards for Wind Energy Facilities"?

24 A. I do.

25 Q. Do you see subsection A, entitled

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2 "Transmission Lines"?

3 A. Yes.

4 Q. Could you read that paragraph,
5 please?

6 A. All power transmission lines from
7 the tower to any building or other structure shall be
8 located underground to the maximum extent
9 practicable.

10 Q. Does Canisteo wind energy seek
11 waiver from this requirement?

12 A. In the Town of Canisteo, I do not
13 believe we have any collection lines that are being
14 reviewed under this proceeding that would be a
15 proposed to be above ground. So for that reason I
16 would say no. But I would have to review that more
17 carefully to make sure that we don't have a small
18 locate --you know, short location where we may need
19 to go overhead to avoid ravine, a wetland, a stream.
20 Sometimes that happens.

21 Q. So is it your testimony that
22 Canisteo Wind could potentially change the
23 application after this hearing to seek waiver from
24 local law 1 of 2019 of the Town of Canisteo?

25 MR. DAX: This -- this may call for a

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2 legal conclusion because it's not clear to me that
3 Section A of Section 12 requires a waiver in any
4 event.

5 THE WITNESS: Okay.

6 A.L.J. LEARY: And why is that?

7 MR. DAX: Because it says to the
8 maximum extent -- extent practicable, it doesn't say
9 unless otherwise waived by the Town Board. It poses
10 a legal issue that I -- I don't --

11 A.L.J. LEARY: It is a legal issue
12 that's posed here. And I'll tell you why. I'm not
13 going to take time on the record for this, to explain
14 this. But whether a waiver would have to be sought
15 or not can be the subject of discussions more broadly
16 when we talk about other issues after the close of
17 the hearing and when we're talking about briefing,
18 etcetera. There is something I do want to explain
19 about that that is a common misunderstanding not
20 present company included or excluded but let's not
21 take time to do that. I do think that it does call
22 for something that would really need to be answered
23 by Mr. Dax.

24 And I don't want for that reason, this
25 witness to have to speculate about what Mr. Dax might

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2 say including the fact that it's an attorney client
3 communication whatever he does say. So is there
4 another way you can approach this?

5 MS. O'TOOLE: Would Your Honor feel
6 more comfortable if I asked the witness whether
7 Canisteo Wind intends to comply?

8 A.L.J. LEARY: With local law number
9 1?

10 MS. O'TOOLE: With specific provisions
11 of local law number 1.

12 A.L.J. LEARY: I think that's fair.

13 MS. O'TOOLE: I mean the -- the basis
14 for this line of questioning is, well, first of all,
15 we're just seeing this document, this would
16 ordinarily be included as an exhibit to the
17 application. How it had been adopted before the
18 application was filed and I think that, you know, we
19 need to know what -- where Canisteo Wind stands on
20 this issue before briefing.

21 A.L.J. LEARY: I think that's right.
22 What do you -- what have you to say Mr. Dax is that -
23 -

24 MR. DAX: We -- we intend to -- we
25 have said in the application that we intend to comply

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2 with all local laws. We get -- we are not seeking
3 the waiver of any local laws.

4 MS. O'TOOLE: But that was before this
5 local law was adopted.

6 MR. DAX: Well, you've heard my legal
7 opinion, at least, you can -- you can infer my legal
8 opinion. So yes --

9 A.L.J. LEARY: Can we go off the
10 record for a second?

11

12 (Off the record, 5:49 to 6:00)

13 A.L.J. LEARY: And allow Ms. O'Toole
14 to continue.

15 BY MS. O'TOOLE: (Cont'g.)

16 Q. All right. Mr. Miller, staying
17 on page 8 of hearing Exhibit 224 Section 12, could
18 you go down to subsection G, please.

19 A. Yes.

20 Q. Could you read that section
21 please?

22 A. Use of Guy-wires for wind --
23 W.T.G. is disfavored. A W.T.G. using Guy-wires for
24 tower support shall incorporate appropriate measures
25 to protect the Guy-wires from damage which could

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2 cause tower failure.

3 Q. Do you know whether Canisteo Wind
4 intends to comply with Section 12, subsection G?

5 A. We do.

6 Q. Turning to page 9, Section 12,
7 subsection N, entitled "Construction Times". Do you
8 see that?

9 A. Yes.

10 Q. Could you read that subsection,
11 please?

12 A. Construction times. Construction
13 of a wind energy facility shall be limited to the
14 daylight hours wind practicable.

15 Q. Are you aware whether Canisteo
16 Wind intends to comply with Section 12, subsection N?

17 A. We intend to comply.

18 Q. Moving down to subsection O,
19 entitled "Flicker and Shadow". Could you read that
20 section, please?

21 A. The operator of a wind facility
22 shall provide reasonable mitigation to the owner of
23 any offsite residence including after built
24 residences where annual expected combined flicker and
25 shadow hours are more than 30 hours per year or 30

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2 minutes per day.

3 Q. Do you know, Mr. Miller, whether
4 Canisteo Wind intends to comply with Section 12,
5 subsection O?

6 A. We intend to comply with that.

7 Q. Thank you. Turning to page 10,
8 Section 15, entitled "Sound Levels and W.T.G. Set
9 Backs". Do you see that?

10 A. I'm sorry. Section -- yes, I do.

11 Q. Do you see subsection A entitled
12 "Sound Levels"?

13 A. I do.

14 Q. Could you read subsection A,
15 please?

16 A. The sound pressure level
17 generated by the full and simultaneous operation of
18 all wind turbines shall not exceed 45dBA one hour Leq
19 measured at the exterior of the nearest residence is
20 located off the site. Sites can include more than
21 one piece of property and the requirement shall apply
22 to the combined properties. The standards set forth
23 in NCS 12.9 Part 3 shall be followed to determine
24 sound to -- turbine only noise levels from the
25 measured total noise levels (turbines plus wind and

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2 other sources) and the sound level from a wind
3 turbine shall not exceed 50dBA one hour Leq measured
4 in any non-participating property boundary.

5 Q. Thank you, Mr. Miller. Do you
6 know whether Canisteo Wind intends to comply with
7 Section 15 subsection A?

8 A. We do.

9 Q. I have no more questions about
10 this document. We'll move on. Mr. Miller, Canisteo
11 Wind proposes to build a facility with the capacity
12 of 290.7 megawatts. Is that correct?

13 A. That's correct.

14 Q. And Mr. Hankard testified that
15 when he did the noise modeling for this project his
16 analysis assumed that all 117 locations would be
17 used, 102 of which would be model GE3.6-137 and 15 of
18 which would be GE2.3-116 turbines. Do you know where
19 that assumption came from, Mr. Miller?

20 A. I'm not -- Mr. Hankard said that
21 he modeled it but they mix the turbines?

22 Q. He did. It's on page 46 of the
23 noise panel's rebuttal testimony.

24 A. Okay. So you're asking me where
25 that assumption came from?

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2 Q. Yes.

3 A. He would have developed that in
4 conferring with us.

5 Q. Okay. Do you know, Mr. Miller,
6 whether model GE3.6-137 was used for the visual
7 impact study?

8 A. I believe that's what Mr. Hecklau
9 testified to earlier today.

10 Q. And is it your understanding that
11 Canisteo Wind intends to build on all 117 proposed
12 turbine locations?

13 A. Sorry. Can you repeat the
14 question?

15 Q. Sure. Is it your understanding
16 that Canisteo Wind intends to build on all 117
17 proposed turbine locations?

18 A. What do you mean by the word
19 intends?

20 Q. Are you planning to build 117
21 turbines?

22 A. That is -- we have a plan that we
23 are reviewing 117 turbine sites and we're asking for
24 permission to build on possibly all of them. But I
25 think we've been pretty clear that we're evaluating a

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2 range of turbines and if we use turbines that have
3 higher megawatt capacity we would not build on all
4 117 sites.

5 Q. All right. Do you see in front
6 of you what's been marked -- previously marked as
7 hearing Exhibit 195 which is a 3 page document
8 entitled Canisteo Wind Energy LLC response to
9 Sharkey-06 interrogatory/document requests?

10 A. Yes, I have that document.

11 Q. I just like to know if that is my
12 copy, the witnesses have been walking off with the
13 witness copy so please return that to me after your
14 testimony.

15 A. Okay.

16 Q. Are you familiar with this
17 document?

18 A. I'm reviewing it.

19 Q. Take your time.

20 A. Developed a while ago but, yes, I
21 can speak to this.

22 Q. Did you prepare this document?

23 A. Yes.

24 Q. Could you please turn to page 2
25 question 6? Let me know when you're there.

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2 A. I'm there.

3 Q. Could you read question 6 aloud
4 for the record please?

5 A. Please state how many sites would
6 be required to meet the proposed capacity of 290.7
7 megawatts for each type of turbine identified in
8 response to the question 5 above.

9 Q. Was your response to this
10 question a table with columns for vendor, model,
11 rotator diameter, nameplate capacity and megawatts
12 and estimated number of turbine sites required to
13 reach 290.7 megawatts?

14 A. Yes.

15 Q. Do you see model GE3.6-137 in the
16 4th row of the table corresponding to questions 6

17 A. Yes.

18 Q. In that row are the maximum
19 number of GE3.6-137 turbines required to reach --
20 what -- I'm sorry. What are the maximum number of
21 GE3.6-137 turbines required to reach 290.7 megawatts?

22 A. I hate to do this to you but if
23 we read things literally it doesn't say maximum it
24 says estimated number of turbines sites required.

25 A.L.J. LEARY: Okay. What --

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2 BY MS. O'TOOLE: (Cont'g.)

3 Q. Okay. So what --

4 A. I think so --

5 Q. -- what are the --

6 A. -- no, I don't have the maximum.

7 Q. -- what are the estimated number
8 of GE3.6-137 turbines required to reach 290.7
9 megawatts?

10 A. The tables says 80.

11 Q. Do you know what the minimum is?

12 A. No, what this is simply doing is
13 dividing the number of megawatts by the megawatt
14 capacity of a turbine.

15 Q. Okay. You prepared this
16 document, correct?

17 A. Yeah. But it doesn't say
18 anything about minimums.

19 Q. I'm not asking you what's on the
20 document. I'm asking if you know because you
21 prepared this response.

22 A. What's your question please? Can
23 you restate the question?

24 Q. My question is if -- if 80
25 turbines is not a maximum number required for -- to

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2 reach 290.7 megawatts using a GE3.6-137, do you know
3 what the minimum is?

4 A. I think you could divide 290.7 by
5 3.6 and that would give you the estimated number of
6 turbines that we would need if we use that model.
7 There is no maximum, there is no minimum.

8 Q. To your knowledge, would that be
9 80?

10 A. It's division.

11 Q. Yes, thank you for educating the
12 record on division. To your knowledge, would that be
13 80?

14 A. I'll have to redo the math. Do
15 you want me to do that right now? Is that what we're
16 trying to do here? Do you want me to redo the
17 division?

18 A.L.J. LEARY: Let me just -- let me
19 just jump in here. What is -- I mean, obviously as
20 the business development person for Invenergy and the
21 main person moving this project forward, there is
22 some type of an understanding that the company has
23 about getting to 290 megawatts. And I see in this
24 document 80.

25 THE WITNESS: Yes.

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2 A.L.J. LEARY: But is -- is that -- is
3 that what's probably going to happen, 80 turbines?
4 80 sites?

5 THE WITNESS: We -- yeah. If we were
6 to build this with 3.6, GE3.6 which is a unit that we
7 are seriously considering, yes, 80 turbines is what -
8 - 80 turbine sites. Now, I don't believe this
9 factors in safe harbor turbines which is another
10 nuance, you might have a mix of turbines so you might
11 end up with --

12 A.L.J. LEARY: 85.

13 THE WITNESS: Yeah. That's right.

14 A.L.J. LEARY: Got it. And where is
15 your best wind that these sites or these 80 would
16 find themselves to be located?

17 THE WITNESS: There is that is
18 involved in that analysis. There are lots of factors
19 that go into selecting which turbine sites you would
20 put them, best wind is one of them.

21 A.L.J. LEARY: And have you done that?

22 THE WITNESS: It's not an easy answer.

23 A.L.J. LEARY: Got it. Have you --
24 I'm sorry to interrupt. Have you done that analysis
25 of where those 80 would go if you had -- could use

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2 all of the 3.6 turbines?

3 THE WITNESS: We've done versions of
4 that because they're internal things and they're
5 effective -- they're effected by many factors, things
6 that are occurring in this process and so it's hard
7 for us to say exactly what the best sites are to
8 build on at this point.

9 A.L.J. LEARY: Okay. But you have
10 some idea internally. And it's a moving target is
11 what I hear you saying.

12 THE WITNESS: Yes, in part because we
13 have to take back information we learn here on this
14 process.

15 A.L.J. LEARY: Got it.

16 THE WITNESS: If they are going to
17 change the conditions on us then maybe we can build
18 it over here. So that's part of it.

19 A.L.J. LEARY: Okay. Got it. Is that
20 helpful, Ms. O'Toole, to understand that there could
21 be a mix of turbines? It sounds like based on a
22 number of factors the sites may change based upon
23 what different parties --

24 MS. O'TOOLE: Yes, Your Honor, you
25 know --

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2 A.L.J. LEARY: -- bring the table.

3 MS. O'TOOLE: -- the purpose of this
4 line of questioning is to determine the likelihood
5 that all 117 sites will be used.

6 BY MS. O'TOOLE: (Cont'g.)

7 Q. So Mr. Miller, do you know what
8 the likelihood is that all 117 turbine sites will be
9 used?

10 A. Likelihood -- do you want me to
11 assign a probability to it. I would say there is a
12 10 percent probability to use all 117 sites. I don't
13 know if that helps but that's one way to express it.

14 Q. Okay.

15 A.L.J. LEARY: Without being --
16 without being foreclosed from using all that's why
17 you want all 117 approved, correct?

18 THE WITNESS: Correct.

19 A.L.J. LEARY: Okay.

20 BY MS. O'TOOLE: (Cont'g.)

21 Q. In the event that all 117 sites
22 were approved and you opted to use the -- or Canisteo
23 Wind opted to use a turbine model which required
24 fewer than 117 sites, what would happen with the un-
25 used sites?

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2 A. They would be -- they will remain
3 as they are. I mean, are you asking physically what
4 would happen to them?

5 Q. I'm asking what would happen with
6 the leases. I apologize. I'll clarify.

7 A. Well, that's private matter that
8 we've not sorted out yet with those landowners.

9 Q. Would those properties be
10 considered for an expansion of this facility?

11 A. That's something we have not
12 considered and it's not something that would -- that
13 would be a completely different proceeding if it was
14 the case.

15 Q. Yeah. Okay. In front of you is
16 a document, a 3 page document entitled "Canisteo Wind
17 Energy LLC response to Sharkey-07
18 interrogatory/document requests" with several pages
19 of attachments. It's the thick document in front of
20 you. Do you -- do you see that?

21 A. This one?

22 Q. Yes.

23 A. Yes.

24 MS. O'TOOLE: It's assigned item 221 -
25 - yeah. 221, I believe on Mr. Dax's list. Could we

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2 have a proposed exhibit number, Your Honor?

3 A.L.J. LEARY: 221 is C.W.E. response
4 to Sharkey-02.

5 MR. DAX: 225.

6 MS. O'TOOLE: 225.

7 A.L.J. LEARY: I have in my hand CW --
8 Canisteo Wind Energy response to Sharkey-07.

9 MS. O'TOOLE: Yeah. That is -- that
10 is the one.

11 A.L.J. LEARY: That is being assigned
12 225.

13 MS. O'TOOLE: 225, okay.

14 A.L.J. LEARY: Is that what everybody
15 has for the next -- I'm looking at you, Ms. Senlet,
16 do you feel very good about this? And one question
17 for you, Ms. Senlet, is Sharkey-10, 224?

18 MR. DAX: No.

19 MS. SENLET: Sharkey-10 is 220, Your
20 Honor.

21 MR. DAX: 224 is the local law that
22 was talked about.

23 A.L.J. LEARY: All right. Okay.
24 Thank you.

25 MS. O'TOOLE: And I apologize, Your

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2 Honor. I was referring to the item number on Mr.
3 Dax's list not a proposed exhibit number.

4 A.L.J. LEARY: Oh, it already has a
5 number. Is that what you're telling me?

6 MS. O'TOOLE: No, I'm telling you that
7 the item number on Mr. Dax's list -- I believe was
8 221 but I'm happy with --

9 A.L.J. LEARY: Right.

10 MS. O'TOOLE: -- Proposed Exhibit
11 number 225.

12 A.L.J. LEARY: We are going to give
13 Sharkey-07 225.

14 MS. O'TOOLE: All right.

15 BY MS. O'TOOLE: (Cont'g.)

16 Q. Mr. Miller, turning your
17 attention back to what's been marked as proposed
18 Exhibit -- Hearing Exhibit 225. Are you familiar
19 with this document? Feel free to take your time to
20 look at it.

21 A. Thank you. Yes.

22 Q. Did you prepare this document?

23 A. I prepared portions of it and
24 Jacob Runner also prepared other portions of it.

25 MS. O'TOOLE: At this time, Your

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2 Honor, we would ask that Proposed Hearing Exhibit 225
3 be moved into the record.

4 A.L.J. LEARY: Any objections? Okay.
5 So admitted.

6 BY MS. O'TOOLE: (Cont'g.)

7 Q. Mr. Miller, are you an expert in
8 the area of acoustics?

9 A. No.

10 Q. Okay. All right. Also in front
11 of you, Mr. Miller, is a 1 page document containing
12 the definition of subsidy from Black's Law
13 Dictionary, 11th edition, 2019. Could you please
14 read the definition of subsidy on that document?

15 A. I'd love to. A grant usually
16 made by the government to any enterprise whose
17 promotion is considered to be in the public interest
18 although governments sometimes make direct payments
19 such as cash grants, subsidies are usually indirect.
20 They may take the form of research and development
21 support tax breaks, provision of raw materials at
22 below market prices or low interest loans or low
23 interest export credits guaranteed by the government
24 agency, also termed grant.

25 Q. Now, Mr. Miller, could you please

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2 turn to page 28 of your rebuttal testimony.

3 A. I'm there.

4 Q. Could you read lines 9 through 12
5 starting with the words I disagree?

6 A. I disagree that the payment for
7 renewable attributes should be labeled as subsidy.
8 Rather it's a payment required to motivate a response
9 where the competitive power markets would otherwise
10 not effectuate the policy the State has adopted.

11 Q. Comparing the definition of
12 subsidy that you just read into the record and your
13 statement on page 28 lines 9 through 12 of your
14 rebuttal testimony, how is -- what -- how is this not
15 a subsidy?

16 A. We are not receiving a grant.
17 This is a competitively bid process. It's fiercely
18 competed over by different private companies.
19 They're offering the lowest possible price to provide
20 something. These definition says a grant. I think
21 that's different.

22 MS. O'TOOLE: I have no further
23 questions of this witness.

24 A.L.J. LEARY: Anyone else have
25 questions for this witness?

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2 MS. MEAGHER: I do, Your Honor.

3 A.L.J. LEARY: Yes, Ms. Meagher.

4 CROSS EXAMINATION

5 BY MS. MEAGHER:

6 Q. Mr. Miller.

7 A. Yes.

8 Q. Am I correct in -- you stated
9 that in identifying properties and what buildings are
10 on properties that you sent people out to look at
11 these properties?

12 A. Yes.

13 Q. At any time did you use Steuben -
14 - Steuben County real property assessment tool to
15 identify property class and what buildings were on a
16 property?

17 A. I would have to confer with Jake
18 Runner on that. We outsource that -- we hired E.D.R.
19 to do that and that may have been something they did.
20 I'm not sure.

21 MS. MEAGHER: Okay. And then I would
22 like to know, Judge, I'm I able to refer to a public
23 comment from individual on the D.M.M.

24 A.L.J. LEARY: You can ask the witness
25 if he has seen the public comment.

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2 MS. MEAGHER: Okay.

3 BY MS. MEAGHER: (Cont'g.)

4 Q. Have you seen the public comment
5 by Jerry Griffo number 166 on 06/24/19?

6 A.L.J. LEARY: So you might want to
7 show Mr. Miller that comment to refresh his --

8 MS. MEAGHER: Can I read it?

9 A.L.J. LEARY: You don't have it in a
10 hard copy for the witness?

11 MS. MEAGHER: No, I don't.

12 A.L.J. LEARY: Okay.

13 MS. MEAGHER: It's not terribly long.

14 A.L.J. LEARY: Go ahead and read it.
15 I'm happy to pull it up.

16 MS. MEAGHER: Okay.

17 MS. SENLET: What was the number on
18 that --

19 MS. MEAGHER: I believe it was --

20 MR. DAX: 166.

21 MS. MEAGHER: -- 166. It was posted
22 on June 24th, 2019.

23 A.L.J. LEARY: June 24th?

24 MS. MEAGHER: Yes, by Jerry Griffo.
25 It was a public comment not a --

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2 A.L.J. LEARY: Right.

3 MS. MEAGHER: Right.

4 A.L.J. SHERMAN: Is that G-R-I-F?

5 MS. MEAGHER: Correct.

6 A.L.J. LEARY: Okay. Do you have it?

7 THE WITNESS: I'm working on it.

8 A.L.J. LEARY: Here, just look it up.

9 THE WITNESS: Oh, thank you.

10 A.L.J. LEARY: But don't look at
11 anything else.

12 THE WITNESS: Yes, ma'am. Okay. I've
13 read this. I have not seen this before.

14 BY MS. MEAGHER: (Cont'g.)

15 Q. Okay. Does this -- do you not
16 read the comments -- the public comments on D.M.M.?

17 A. No, I think I do not read all of
18 the comments --

19 Q. Okay.

20 A. -- on D.M.M.

21 THE REPORTER: Speak up a little bit.

22 THE WITNESS: No.

23 BY MS. MEAGHER: (Cont'g.)

24 Q. Does this not -- yeah, again
25 reveal that a non-participating property owner has

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2 been identified as a participating property?

3 A. It appears as -- it suggests
4 that, yes, I have not personally validated this. I
5 do think that when Mr. Woodcock was up here he said
6 there were 3 or 4 parcels that had been identified as
7 in negotiations and those negotiations really didn't
8 get off the ground.

9 Q. And you do not know --

10 A. And this --

11 Q. -- you do not know if this was
12 one of those properties?

13 A. This name sounds familiar to me.
14 I believe it is one of those properties.

15 Q. Is there any reason why this
16 house was -- this property was identified as a
17 seasonal rather than a permanent residence?

18 A. I mean, I don't have all of the
19 property -- obviously, I don't have those memorized
20 and can't recount the specifics but based on what
21 this gentleman had said it appears that he has a
22 trailer on his property and that he is planning to
23 live on it year round in the future --

24 Q. That's not what he says. He says
25 he has 2 properties.

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2 A. Right but --

3 Q. One with a permanent residence
4 and one with a trailer. And if he use the Steuben
5 County parcel -- real property parcel locator and
6 look at this it clearly states that this property is
7 a 240, a residential property not a seasonal
8 property.

9 A. Well, as I said I don't know --
10 I'm not familiar with whether or not we reviewed all
11 of the county tax records in doing this. All I'm
12 referring to is the sentence here in his -- his
13 public comment. It says my house is receptor ID 42
14 on 36 acres which will become my permanent residence.
15 This house is not seasonal as they list it. That
16 sentence suggest that it currently is seasonal and he
17 is planning to move in permanently. And so the
18 complaint is that we categorized it as seasonal. It
19 actually sounds like we got it right.

20 Q. Okay. But he has also been
21 identified as participating property owner when he
22 was not.

23 A. Yeah. I understand that.

24 MS. MEAGHER: That concludes my
25 question.

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2 A.L.J. LEARY: Thank you.

3 MR. WISNIEWSKI: Your Honor, if
4 possible, I know Ms. O'Toole already ended
5 questioning but we missed one question based on Mr.
6 Mullen's questioning. It's just one question I got
7 to ask.

8 A.L.J. LEARY: Go ahead. Does anybody
9 have a problem with that? We're almost done. Go
10 ahead.

11 MR. WISNIEWSKI: I'll do a few to set
12 the context.

13 CROSS EXAMINATION

14 BY MR. WISNIEWSKI:

15 Q. Mr. Miller, did you previously
16 state that you served in a role overseeing
17 negotiations with landowners for this project?

18 A. I say previously I --

19 Q. Today?

20 A. Yes, I do.

21 Q. So your previous testimony is
22 that you over -- you over -- you oversee negotiation
23 with landowners?

24 A. Correct.

25 Q. And in your role overseeing

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2 negotiation with landowners, are you able to share
3 what percentage of those participating landowners
4 were represented by counsel during the negotiations?

5 A. No, I'm not -- I'm not on the
6 ground with the guys who are doing the work day to
7 day. So I don't have those kind of numbers.

8 Q. Is that something you could find
9 out?

10 A. No, we don't keep track of
11 that. Those numbers just don't exist.

12 Q. Is it common for participating
13 landowners to be represented by counsel during the
14 process by which they become participating
15 landowners?

16 A. It's fairly common, yes.

17 MR. WISNIEWSKI: No further questions,
18 Your Honor.

19 A.L.J. LEARY: Okay. Anybody else?
20 Mr. Dax, do you have redirect?

21 MR. DAX: No redirect, Your Honor.

22 MS. VIGARS: Your Honor, in the
23 interest of levity, Mr. Davis has one clarifying
24 question that he would like to ask?

25 A.L.J. LEARY: Okay.

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2 MR. DAVIS: Are we on the record?

3 MS. VIGARS: We'd like to good off the
4 record to ask this question.

5 A.L.J. LEARY: Okay. Wait a minute.
6 Before we do that. Levity, loving it. I just have a
7 clarifying question about -- you indicated that the 8
8 point project and the Howard project are visible or
9 would be visible from this project. Is that right?

10 THE WITNESS: Yes.

11 A.L.J. LEARY: Okay. And I don't
12 really understand where the 8 point project is in
13 relation to the site or the Howard project. So could
14 you give us sort of a frame of reference on what part
15 of this project and you can use turbine numbers,
16 identifiers, you can use roads, however you want to I
17 -- However, this is not the whole map though. Can
18 you show me what on this map what -- if you have a
19 better map, Ms. Senlet --

20 MS. SENLET: Jake has a better map I'm
21 sure.

22 THE WITNESS: Okay. It's a beautiful
23 map, I'm sure.

24 A.L.J. LEARY: Okay. Just so I can
25 see visually --

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2 THE WITNESS: While Jacob is pulling
3 that up if I could --

4 A.L.J. LEARY: Yeah.

5 THE WITNESS: So the Howard Wind
6 Project is north of where we're looking -- and if we
7 look at that on the map you can see those everywhere
8 and I'm sure E.D.R. does studies of that when you're
9 on the high point like when you're at Marsh Hill
10 Wind Farm, which is somewhat in the middle of the
11 project area we're talking about. You can -- you
12 have to look over the hill tops and in the distance
13 you can see the Howard turbines. So that's the kind
14 of visibility.

15 A.L.J. LEARY: During the day?

16 THE WITNESS: During the day.

17 A.L.J. LEARY: Okay.

18 THE WITNESS: So if you were down, you
19 know, you come -- you drive off the hill you don't
20 see that.

21 A.L.J. LEARY: So it's --

22 THE WITNESS: Pretty far away.

23 A.L.J. LEARY: Pretty far away and
24 it's --

25 THE WITNESS: You can get an actual

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2 distance from Jacob.

3 A.L.J. LEARY: Is it only from a few
4 locations that you would be able to see those other
5 wind farms?

6 THE WITNESS: It's big area. Saying a
7 few --

8 A.L.J. LEARY: Yeah.

9 THE WITNESS: -- is probably not
10 accurate but when you're on top of the hills and
11 there is no trees around you, you have a clear -- you
12 have to have a clear vantage and you got to be up
13 high to see them.

14 A.L.J. LEARY: Okay. Does -- I mean,
15 just -- do the rest of the parties understand?

16 MR. MULLEN: Well, Your Honor, I
17 don't. Well, I just think tomorrow when we're on the
18 site visits you -- you won't be able to see the
19 lights but there are some areas where I'm familiar
20 with it that I could just point out where you can see
21 some of the projects --

22 A.L.J. LEARY: Okay. That would be
23 helpful.

24 MS. O'TOOLE: Yes.

25 MR. DAX: And it's going to be a very

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2 clear day tomorrow so it will be as good as it
3 probably gets.

4 A.L.J. LEARY: Yeah. Okay. That
5 would be helpful.

6 MS. MEAGHER: Your very first stop
7 will show you.

8 A.L.J. LEARY: Okay.

9 MR. WISNIEWSKI: Your Honor, you also
10 mention 8 point range and you omitted Baron Wind
11 which is even larger.

12 A.L.J. LEARY: No, but I -- I didn't
13 hear Baron Wind was visible in the testimony. Did --
14 did I miss that?

15 MR. WISNIEWSKI: We did mention Baron.

16 A.L.J. LEARY: He did?

17 MR. DAX: 8 point for sure would be
18 visible to the southwest. Howard -- Howard in some
19 places to the north and Marsh Hill is right in the
20 middle of it. So you will see Marsh Hill.

21 A.L.J. LEARY: Okay.

22 MR. DAVIS: So this is --

23 A.L.J. LEARY: Anybody can come up and
24 look at this while Mr. Miller is showing me this.
25 We're still on the record and I would -- if I could --

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2 - can I have this as an exhibit?

3 MR. DAVIS: This is in -- this is in -

4 -

5 A.L.J. LEARY: Are this Andy's?

6 MR. DAVIS: And this in the shadow

7 flicker report.

8 THE WITNESS: I think it's in Exhibit

9 --

10 A.L.J. LEARY: He is always a clutch

11 player.

12 MR. DAVIS: It's from visual impacts.

13 A.L.J. LEARY: It is in the V.I.A.

14 Okay, go ahead.

15 MR. DAVIS: This is showing the areas

16 with cumulative visibility.

17 A.L.J. LEARY: Okay. So --

18 MR. DAVIS: It was actually overlap

19 over the few projects.

20 A.L.J. LEARY: I have not seen this

21 map.

22 MR. DAVIS: It's in the southwest,

23 there is a lot --

24 A.L.J. LEARY: But I see Marsh Hill --

25 THE WITNESS: So this is Marsh Hill.

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2 This is the point I was talking about and so these
3 dots are where we've proposed turbines for Canisteo
4 Wind and these dots are where -- for 8 point. This
5 is --

6 A.L.J. LEARY: So this is directly
7 adjacent.

8 THE WITNESS: Yeah. This is not --

9 A.L.J. LEARY: Right.

10 THE WITNESS: And this is Howard which
11 is existing.

12 A.L.J. LEARY: That is Baron.

13 THE WITNESS: This is Howard Wind,
14 which is existing.

15 A.L.J. LEARY: That's right. Yeah.

16 THE WITNESS: Yeah. And so if you
17 look at this is 4 miles right there. Roughly that
18 distance. So I was saying if you're up here that's
19 like 4 miles -- that's like 8 miles away. Baron will
20 be further beyond that is a part of the parcel C.
21 But obviously you have to be up at the top of the
22 hill and then you can see this in the distance.

23 MS. VIGARS: Your Honor, are we on the
24 record?

25 THE REPORTER: We are.

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2 A.L.J. LEARY: We are.

3 MS. O'TOOLE: We are.

4 A.L.J. LEARY: This is the most --
5 this is the closest and then on Marsh Hill it was
6 really in the middle of your project area?

7 THE WITNESS: Yes.

8 A.L.J. LEARY: And Baron is -- I'm
9 sorry. 8 point -- 8 point is going to be pretty much
10 adjacent and there -- there look to be a few --

11 THE WITNESS: On broad scale --

12 A.L.J. LEARY: Well, how far are these
13 turbines apart from -- I see --

14 THE WITNESS: These are pretty close.
15 I'm not -- we'd have to zoom that obviously but look
16 at that --

17 A.L.J. LEARY: If your scale is 4
18 miles you're talking about -- that's not even --

19 THE WITNESS: You can just look and
20 see how -- see how we arrange this things to be -- so
21 the wind comes in this direction.

22 A.L.J. LEARY: Right.

23 THE WITNESS: So you try to space them
24 to be down wind. So you can see where we are putting
25 our own turbine we try to make the down wind turbines

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2 pretty far apart. These are two companies that are
3 not cooperating with each other. This is not going
4 to go well. Okay.

5 A.L.J. LEARY: This meaning 8 point --

6 THE WITNESS: These turbines would be
7 waking. These turbines would be very bad for us if
8 they got build which is why I say, you know, it's
9 hard to say which ones to actually build. This
10 turbine will not perform if that turbine was in front
11 of this. A.L.J. SHERMAN: Excuse me. This is
12 on the record and we'll not be able to reestablish
13 this. Let's just say could you describe for the
14 record where on this exhibit you're pointing, Mr.
15 Miller?

16 THE WITNESS: You see I'm talking
17 about the turbines that are in the furthest southwest
18 corner of the Canisteo project area.

19 A.L.J. LEARY: Adjacent to the 8 point
20 wind turbines.

21 THE WITNESS: Yes.

22 A.L.J. LEARY: And it sounds like the
23 -- the reference to the 2 companies not working with
24 each other quite yet. Would be Invenergy and who is
25 --

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2 THE WITNESS: Next Era.

3 A.L.J. LEARY: The Next Era, the
4 developer of 8 point. I -- I hear you. Okay. And
5 this is a great visual for us --

6 THE WITNESS: I agree.

7 A.L.J. LEARY: -- to see this. So
8 it's in the V.I.A as Figure 11. And I may pull that
9 out and just give it its own exhibit number. If
10 that's okay. I want to hear an objection. V.I.A. is
11 Exhibit 11 which is a map. I would like to hear
12 objections if we admit that to the record as a
13 separate document. I think it's very helpful for the
14 parties to have that sort of pulled out. Any
15 objections to admitting V.I.A. Exhibit 11?

16 A.L.J. SHERMAN: Sorry. Is it 11 or
17 Figure 11 --

18 THE WITNESS: It's Figure 11 --

19 MR. DAX: It's from the -- it's from
20 the V.I.A. so that would --

21 THE WITNESS: What's it say down on
22 the bottom, Mr. Davis. Is it Figure 11?

23 MR. DAVIS: Yes.

24 A.L.J. LEARY: Thank you, sorry.

25 MR. DAX: Figure 11 in what exhibit?

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2 19?

3 MR. DAVIS: 24.

4 MR. DAX: 24, okay. 24.

5 A.L.J. LEARY: Exhibit -- application
6 Exhibit 24, Figure 11, which is a map showing all of
7 the nearby wind projects. I would like to propose be
8 admitted to the record as Hearing Exhibit 227. Do I
9 have any objections to this sua sponte request making
10 of the parties?

11 MS. VIGARS: We would just like to
12 clarify where this document is located in the record
13 and maybe Mr. Dax can repeat it because he has the
14 most up to date version.

15 MR. DAX: It's -- it's in the -- it's
16 in the -- let me get this right. It's in the
17 supplement, I believe.

18 A.L.J. SHERMAN: No, it's in the
19 original.

20 MR. DAX: The original. Okay. So it
21 is Exhibit 24 Appendix 24.A. in -- which is in the
22 V.I.A. report and it is -- so that's part of
23 Exhibit 1 DMM-124.

24 MS. VIGARS: That's Figure 11 of
25 Appendix 24.A. Is that correct?

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2 A.L.J. LEARY: Yeah.

3 MR. DAX: That's -- yeah, I suppose
4 correct.

5 A.L.J. LEARY: That's very helpful.
6 Any objections to admission of this --

7 MR. DAX: No, none here.

8 A.L.J. LEARY: -- particular map.

9 MR. MULLEN: No objection.

10 A.L.J. LEARY: Okay. Any other
11 questions for Mr. Miller?

12 MR. DAX: No questions from us.

13 A.L.J. LEARY: Anybody else? Okay.

14 Thank you so much, Mr. Miller, for your time and your
15 testimony. You can step down. It is now 6:30 and I
16 would like to make a plan for tomorrow because --

17 MS. PAULSEN: Your Honor, I'm sorry to
18 interrupt. I just have a clarification and two
19 requests which we can put into motions before we
20 close the record and start tomorrow.

21 A.L.J. LEARY: We're not closing the
22 record yet --

23 MS. PAULSEN: Okay.

24 A.L.J. LEARY: -- because there is a
25 few outstanding things to do but go ahead, Ms.

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2 Paulsen.

3 MS. PAULSEN: Okay. So the
4 clarification I'd like to note for the record and I
5 think my co-counsel -- oh, I will wait. The
6 clarification I'd like to make for the record and I
7 think my co-counsel -- I will wait. The
8 clarification I would like to make for the record and
9 I think my co-counsel, Ms. Bonilla, already indicated
10 thus far the D.E.C. bald eagle panel testimony. But
11 all 3 threaten endangered species panel testimony on
12 behalf of D.E.C. half-redacted and unredacted
13 confidential versions that would include our bat
14 panel, grassland bird panel and our bald eagle panel.

15 A.L.J. LEARY: And your request is
16 what?

17 MS. PAULSEN: I'm just noting it for
18 the parties, Your Honors, as well as the
19 stenographers so that when the transcripts are made
20 public that we ensure that it was only the redacted
21 versions are included in the public transcript.

22 A.L.J. LEARY: I recall when I was
23 conferring with our court reporter at the time there
24 was only one part of that testimony and I think it
25 was Ms. Denoncour, but I don't remember and -- and

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2 the -- Ms. Allen marked that part of the testimony as
3 confidential. We do it a couple different ways. We
4 can post this transcript. I'm sorry. Provide the
5 parties with a transcript where that is -- that who
6 have signed the protective order that that
7 information in her testimony exist or we can put in a
8 separate transcript her testimony and redacted in the
9 big part of the testimony or the major part of the
10 testimony.

11 MR. DAX: Can I ask a clarification?

12 A.L.J. LEARY: Yeah.

13 MR. DAX: Are you talking about your
14 pre-filed testimony?

15 MS. PAULSEN: Yes.

16 MR. DAX: Yeah. She is not talking --

17 A.L.J. LEARY: I'm sorry.

18 MR. DAX: I know you're talking about
19 the one record --

20 A.L.J. LEARY: There is -- there was a
21 testimony though during the hearing as I recall. Do
22 you remember this?

23 MR. DAX: It was the eagle testimony.

24 MS. PAULSEN: It was only the -- the
25 only live oral testimony throughout this proceeding

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2 that is protected from D.E.C.'s point of view is the
3 bald eagle testimony and I think Mr. Dax already
4 indicated when he was -- when the start of the
5 confidential information began during an --

6 A.L.J. LEARY: And Ms. Allen noted
7 that in the records so we will protect that.

8 MS. PAULSEN: Okay.

9 MR. DAX: All right. Yeah. There was
10 a water body mentioned that one word needs to be
11 dealt with.

12 A.L.J. LEARY: And we'll deal with
13 that. What we probably will not do is put that in a
14 separate --

15 MR. DAX: Just put a piece of black
16 tape over it.

17 A.L.J. LEARY: Right. That's what
18 we're going to do. Okay. So I'm sorry. In the pre-
19 filed.

20 MS. PAULSEN: Correct.

21 A.L.J. LEARY: So it's already not
22 filed in D.M.M. and publicly available. It's only
23 but you're talking about what in your -- in the post-
24 hearing briefs or --

25 MS. PAULSEN: I'm just noting that

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2 when and since all of our pre-filed testimony has
3 been admitted into evidence when the transcript is
4 made available. The public version of the transcript
5 is made available on D.M.M. that it reflects the
6 redacted testimony and not the unredacted.

7 A.L.J. LEARY: Oh, absolutely. It
8 will.

9 MS. PAULSEN: Okay. And I did not
10 note -- I didn't note it for the record when I
11 questioned my panels and also moved it into evidence.
12 So that is --

13 A.L.J. LEARY: Yeah. That --

14 MS. PAULSEN: -- the intended purpose
15 of --

16 A.L.J. LEARY: Yeah. And just so this
17 is a pet peeve of mine after number 3. When -- this
18 is a very difficult process in large part because we
19 do not have a person that has real experience doing
20 this work of putting a transcript together. So you
21 need to check it. All the parties need to check what
22 is in those transcripts to make sure the affidavit
23 bringing in your testimony and the direct, the
24 rebuttal and all of that is squared away including
25 whether we have the right version but I paid

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2 particular attention to that as does Mr. Cameron, who
3 really does this work. But to do it really fast is
4 extremely difficult and we have a -- we have a daily
5 order on this or -- not daily but expedited order.

6 MS. PAULSEN: That was going to be one
7 of my motions so I suppose that's moved.

8 A.L.J. LEARY: Yes, we already took
9 care of that weeks ago and, yet as expedited as it
10 can be because this was a very long hearing and there
11 are going to be thousands of pages of testimony in
12 this one. And what do we have in number 3, 1,800?

13 MR. DAX: That rings a bell.

14 A.L.J. LEARY: That was it.

15 MR. DAX: Yeah.

16 MS. PAULSEN: Yeah.

17 A.L.J. LEARY: Yeah. So this one is -
18 - this one is going to be a lot.

19 MR. DAX: More megawatts, more pages.

20 MS. O'TOOLE: Your Honor, may I ask a
21 question. With regard to the physical original
22 witness affidavits, do you want to take them on the
23 record as opposed to us giving them to. I know you
24 wanted also emailed to you, I just don't want to walk
25 -- go back to Rochester with an original document

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2 that you wish to have in your possession in Albany.

3 A.L.J. LEARY: I think -- what do we
4 do with number 3?

5 MR. DAX: I don't think you needed
6 originals.

7 MS. O'TOOLE: We gave them -- yes, we
8 did and --

9 MR. DAX: I think you just --

10 MS. O'TOOLE: -- we gave them to you.

11 A.L.J. LEARY: I think we did -- you
12 did give them to me and you actually, I --

13 MR. DAX: I don't think --

14 A.L.J. LEARY: Didn't you hand me
15 something at the hearing?

16 MR. DAX: I did but I gave you others
17 by email.

18 A.L.J. LEARY: If you have something
19 now I still need it by email.

20 MS. O'TOOLE: Right.

21 A.L.J. LEARY: It doesn't work to have
22 this thing scanned in but it will help me put things
23 together and so --

24 MS. PAULSEN: Your Honor.

25 A.L.J. LEARY: Yeah.

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2 MS. PAULSEN: I don't have the
3 original affidavits of all my witnesses because they
4 were executed in our regional office.

5 A.L.J. LEARY: Fine.

6 MS. PAULSEN: Okay.

7 A.L.J. LEARY: Does anybody have an
8 objection to me accepting what is going to be a copy?

9 MR. DAX: Not at all. That's why we
10 print.

11 A.L.J. LEARY: Good. So if they're
12 copies that's fine too.

13 MS. PAULSEN: All right. Thank you,
14 Your Honor.

15 A.L.J. LEARY: I just usually
16 judicially take an original of something as you can
17 see that it's in there but --okay.

18 A.L.J. SHERMAN: Just our -- our
19 guiding document or law expressly says we do take
20 copies and are use --.

21 MS. PAULSEN: Thank you.

22 MR. DAX: Even the courts these days
23 are taking electronic copies.

24 A.L.J. LEARY: Right. Well, they have
25 an electronic signature which is --

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2 MR. DAX: Right.

3 A.L.J. LEARY: -- worse than a copy.

4 MS. PAULSEN: And the signatories sign
5 them.

6 MR. DAX: The copy.

7 A.L.J. LEARY: Right. I need a
8 deadline when everybody can get me the affidavit. So
9 if we're going to do these expedited transcripts.

10 MS. SENLET: I believe on the first
11 day of the hearing, Your Honor, you decided that
12 would be next Friday and you say that's --

13 A.L.J. LEARY: Next -- no, I said this
14 Friday. I said this Friday. If we're going to do an
15 expedited transcript I need those affidavits to do
16 the transcripts. They are in the transcript.

17 MR. DAX: I don't have all of -- I
18 have one -- I'm missing one.

19 A.L.J. LEARY: Okay.

20 MR. DAX: So I don't know that I'm
21 going to have it by Friday.

22 MR. MULLER: I thought that -- I
23 thought you said next Friday. We have our --

24 MR. DAX: Yeah. I'm pretty sure she
25 said --

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2 MR. MULLER: -- but I don't think you
3 said that one.

4 A.L.J. LEARY: Unless you don't want
5 these on an expedited basis which we're paying for I
6 would suggest everybody get them in by no later than
7 Monday. Is that --

8 MR. MULLER: Monday. We'll shoot for
9 Monday.

10 A.L.J. LEARY: Is that workable? And
11 I apologize. I intended to say Friday, this week
12 because as soon as Ms. Allen goes back these thing is
13 going to start rolling real fast and I can't send
14 anything to the court reporter until I have those
15 affidavit. It's what, you know, day one looks like
16 is those affidavit, the testimony, the real live test
17 -- the pre-filed testimony, and the live testimony.
18 The affidavit, the pre-filed, the live, that's the
19 way this transcript is going to look. So everything
20 the witnesses said will be in one place on one day.
21 And I think that works for you in terms of briefing,
22 does it not?

23 MR. DAX: Yes.

24 A.L.J. LEARY: You don't want to go to
25 15 different volumes to figure out what he said live,

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2 what he said pre-filed. So that's why I need those
3 affidavits soon and Monday is fine if that works for
4 you. And Mr. Dax, do you have a -- with the one that
5 you're missing.

6 MR. DAX: I think we'll get it by
7 Monday.

8 A.L.J. LEARY: Okay. Good. What
9 about Ms. Paulsen, are you okay with that?

10 MS. PAULSEN: That -- the -- that's
11 acceptable to D.E.C.

12 A.L.J. LEARY: Okay.

13 MR. DAX: Could I --

14 MS. PAULSEN: I have one more -- go
15 ahead, Mr. Dax.

16 MR. DAX: Can I just ask you if we're
17 going beyond 7 o'clock tonight?

18 A.L.J. LEARY: No.

19 MR. DAX: -- because I have to cancel
20 a phone call if we are.

21 A.L.J. LEARY: No, no, no.

22 MR. DAX: Thank you.

23 MS. PAULSEN: Hopefully, my second
24 request will be brief. I would like to request a
25 page limit on briefing in this proceeding.

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2 A.L.J. LEARY: We haven't talked about
3 the table of contents yet. The Applicant saying no -
4 -

5 MS. VIGARS: D.P.S. disagrees with the
6 page limit.

7 A.L.J. LEARY: Having -- having said
8 that I want you to note that this is something I live
9 by and I've lived by it for 30 some years I've been
10 practicing law. It really only takes 10 pages to
11 tell the truth and about an issue, about, you know, a
12 point. I'm with you on a page limit. I don't think
13 we're going to get away with it here and I don't
14 think in number 3 based upon 2 parties, 3 parties, 4
15 parties being involved in number 3, you had really
16 excessively long briefs.

17 MS. PAULSEN: Your Honor, I
18 respectfully disagree some initial briefs are over
19 100 pages and we only have about a 2 week time frame
20 to respond in reply brief to the initial briefs and -
21 - from my perspective that's somewhat excessive and
22 it's difficult in the timeframe that we're given in -
23 - in the schedule.

24 MR. DAX: I'd like to look at sample
25 Article 3 before I accept that a page limit is even

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2 legal and --

3 A.L.J. LEARY: Oh, no, we can do what
4 we --

5 MS. PAULSEN: Your Honors, 16
6 N.Y.C.R.R. Section 4.8 --

7 A.L.J. LEARY: Sorry.

8 MS. PAULSEN: -- permits the presiding
9 examiner to establish page limits on briefing.

10 A.L.J. LEARY: Yeah. I --

11 MR. DAX: In what kinds of
12 proceedings? An Article 3 proceedings.

13 MS. PAULSEN: This is in the D.P.S.
14 regulations.

15 MR. DAX: Right. But that covers a
16 lot of difference types of proceedings.

17 A.L.J. LEARY: Let's not get into this
18 discussion or you're going to miss your 7 o'clock
19 call. And just for the record not for the record but
20 we view our authority as expansive enough as limited
21 as it may be to impose page limits. Having said that
22 I really wanted to have some discussion about the
23 table of contents and what -- what's still remaining
24 after you have some discussions in settlement and --
25 and certainly, we would entertain a brief extension

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2 beyond the two weeks if you're -- if you make the
3 shelling and it's absolutely necessary, you know, if
4 we have, you know, I don't want to see 120 page
5 briefs, 150 page briefs from anybody.

6 Remember it takes 10 pages to really
7 get to the point and cite the things that support
8 what you're saying. I'm not -- I really don't want
9 to see any sentences in anybody's briefs that don't
10 give me somebody that said it, some exhibit,
11 something and there is a lot of that going on. Don't
12 say stuff in your brief that you've come up with that
13 is unsupported by the record. Every single assertion
14 that you make even if it's a full paragraph
15 assertions give me what -- give us what part of the
16 record supports that or else, you know, your work
17 will be not given a lot of weight in all candor but
18 if you have a difficulty Ms. Paulsen, what about
19 asking for the additional time on the back end.

20 MS. PAULSEN: Your Honor, that's an
21 option that I'll reserve depending on how the initial
22 briefs but so are you overruling or are you
23 reserving?

24 A.L.J. LEARY: Help me out here, sir.

25 MS. VIGARS: Again, do you want to

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2 hear from all the parties on this issue if this is a
3 live motion to be decided?

4 A.L.J. LEARY: Yes.

5 MS. VIGARS: Okay.

6 A.L.J. LEARY: We're going to -- go
7 ahead. You -- are you making the same request.

8 MS. VIGARS: No, D.P.S. objects to a
9 page limit. There are a number of issues, highly
10 technical issues that need to be briefed. D.P.S., I
11 can tell you now, we have to brief numerous issues.
12 We know that going into these cases. A page limit
13 will prohibit us from doing that effectively and like
14 thinking of something like noise, for example, these
15 are highly technical issues.

16 A.L.J. LEARY: Yeah. Yeah.

17 MS. VIGARS: We want to make sure we
18 have enough room to thoroughly brief them and provide
19 all of the record references. We've had a lot of
20 cross examination and redirect in this case. The
21 citation will be lengthy alone. So D.P.S. objects to
22 page limits.

23 MR. MULLER: The towns object.

24 MR. WISNIEWSKI: Mr. Sharkey concurs
25 with the position of the counsel for D.P.S. and the

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2 town's.

3 A.L.J. LEARY: So everybody is in
4 favor of no page limit. Denied.

5 A.L.J. SHERMAN: But if you go over 10
6 pages you will have to talk --

7 A.L.J. LEARY: You heard me. You are
8 right, you heard me. I know you heard me say this so
9 be as concise as you can. Hopefully, you will not
10 have to address in D.E.C.'s brief every single issue
11 that's briefed. I know you're going to have to read
12 it but, again, we will entertain if some brief comes
13 in that's excessively long, we will entertain a
14 request to extend the deadline and my preference
15 would be that that deadline isn't extended for
16 everybody but everybody is going to use that
17 extension so just keep that in mind. Two weeks is
18 going to be too much. One week that's probably the
19 sweet spot just for projecting out but it was a
20 request if you find yourself in need of that, Ms.
21 Paulsen.

22 MS. PAULSEN: Thank you, Your Honor.

23 A.L.J. LEARY: Anybody else have
24 anything else?

25 MR. WISNIEWSKI: Your Honor, with

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2 regard to the table of contents, do you have a
3 deadline for a final table of contents?

4 A.L.J. LEARY: I have a list of things
5 I was hoping to talk to you all about tomorrow
6 because Mr. Dax has a 7 o'clock call I can talk
7 quickly about some of them so that we don't have to
8 deal with the -- the I -- the optimal tomorrow would
9 be to leave from wherever we are to go on a site
10 visit. Not to come here and then leave. So I want
11 to be finished. We're finished with the testimonies,
12 no need for us to be here tomorrow unless you want to
13 come -- well, you're coming back.

14 Do you want to do that first and then
15 to the site visit? The agenda that you have in mind
16 because I can get down here and open the room and --

17 MS. VIGARS: Your Honor, on the issue
18 of agenda for settlement, I have not been able to get
19 a hold of all of my technical staff to identify
20 specific issues. We can start a list but perhaps it
21 would be more productive to do it by email. That's
22 what we did in the past to set up a settlement agenda
23 for any potential meetings. We did it by email.

24 MR. DAX: That's fine with me.

25 MS. VIGARS: Okay.

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2 MR. DAX: Yeah. I mean, we have the -
3 - we have the day set and that's a big deal.

4 A.L.J. LEARY: Well, I know Mr. Muller
5 wanted to talk.

6 MR. MULLER: Yeah. But mostly what I
7 wanted to do was actually have some of the
8 discussions and I still don't understand -- I mean,
9 and I don't mean this disrespectful at all but, you
10 know, I -- I've got 6 towns that I have to go back
11 and talk all the staff about and I believe that we
12 should be able to discuss things that could be taken
13 back to your clients or others attorneys that you
14 work with, you know, to finalize things. But maybe
15 it's a waste of -- maybe you feel like it's a waste
16 of time or something, you know, if you don't have the
17 proper people.

18 A.L.J. LEARY: I would like to go off
19 the record at this point because we're sort of
20 straying out to things that don't necessarily have to
21 be transcribed. So I'm going to go off the record.
22 If you want to go back on the record, Ms. Allen, will
23 stay for a few more minutes. Let's not keep here her
24 forever.

25 (Off the record, 6:51)

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2 STATE OF NEW YORK

3 I, HANNAH ALLEN, do hereby certify that the foregoing was
4 reported by me, in the cause, at the time and place, as
5 stated in the caption hereto, at Page 1 hereof; that the
6 foregoing typewritten transcription consisting of pages 1
7 through 1717, is a true record of all proceedings had at
8 the hearing.

9 IN WITNESS WHEREOF, I have hereunto
10 subscribed my name, this the 27th day of August 2019.

11

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13 HANNAH ALLEN, Reporter

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