Appendix A

PSS Filing Notice

November 16, 2018

Dear Stakeholder,

As you may know, High Bridge Wind, LLC ("High Bridge") has proposed to construct a major wind electric generating facility with a nameplate capacity of up to 100-megawatts in the Town of Guilford, Chenango County, New York (the "Facility"). To build the Facility, High Bridge must obtain a Certificate of Environmental Compatibility and Public Need from the New York State Board on Electric Generation Siting and the Environment. This process is required under Article 10 of the New York Public Service Law ("Article 10").

On or about November 30, 2018, High Bridge plans to take the next critical step in the Article 10 process: the filing of a Preliminary Scoping Statement ("PSS"). The PSS will outline the scope and methodology of the many environmental studies the State will require for this Facility. It will also provide an overview of the information to be submitted with the formal Article 10 Application.

The PPS affords stakeholders like you the opportunity at this early stage to review and comment on the proposed studies and information-gathering efforts, which in turn will be used to develop the proposed Facility layout and the Article 10 Application.

Enclosed please find the legal notice of the PSS filing as well as a notice of an Open House that will be hosted by High Bridge on November 28, 2018 at the Guilford Town Hall. The PSS legal notice explains the technical aspects of the Article 10 Scoping Phase and offers potential venues and contacts for obtaining further information. The PSS will be filed electronically on the Siting Board's website (http://www.dps.ny.gov/SitingBoard) and printed copies will be available for public review at the local document repositories identified in the enclosed legal notice.

Persons who wish to become a party to this Article 10 proceeding or those who wish to receive electronic notices, should visit the Siting Board's website (see above) to sign up for the Party or Service List, respectively.

If you have any questions, concerns, or would like to be added to the Project Notification List, please contact Alec Jarvis, the Director of Development for High Bridge, by phone or email, or stop by the Open House where additional project information will be available.

We look forward to hearing from you.

Sincerely,

Alec Jarvis
High Bridge Wind, LLC
Calpine Corporation
717 Texas Avenue, Suite 1000
Houston, TX 77002
Alec.jarvis@calpine.com
(207) 956-1169

High Bridge Wind Project
Chenango County, New York

NOTICE OF SUBMISSION OF PRELIMINARY SCOPING STATEMENT

High Bridge Wind, LLC ("High Bridge" or "Applicant") is proposing to construct a major wind electric generating facility up to 100 megawatts (MW) in size in the Town of Guilford, Chenango County, New York ("High Bridge Wind Project" or "Facility"). To construct the Facility, the Applicant must obtain a Certificate of Environmental Compatibility and Public Need from the New York State Board on Electric Generating Siting and the Environment ("Siting Board") pursuant to Article 10 of the Public Service Law and the Siting Board's rules (16 NYCRR Part 1000). This notice announces that on or about November 30, 2018, High Bridge will file a Preliminary Scoping Statement ("PSS"), pursuant to 16 NYCRR 1000.5.

What is the PSS?

The PSS will describe and identify: 1) the environmental setting in the Facility area proposed, 2) the potential environmental and community benefits and impacts from construction and operation of the Facility, and 3) the Facility's anticipated contribution to the State's achievement of its renewable energy generation goals. The PSS will also identify and describe the proposed environmental studies the Applicant plans to conduct during the Article 10 process in order to assess potential impacts to:

- Land uses in the Facility area;
- Public health and safety;
- Ecological resources, protected species and habitats, and water resources;
- Communications, transportation, and utilities;
- Cultural, historical, and recreational resources;
- Visual impacts and screening;
- Sound; and
- The statewide electrical system.

Furthermore, the PSS will outline potential measures to minimize Facility impacts, reasonable alternatives to the proposed layout, other required permits/authorizations, and other relevant information to be provided in the Article 10 Application.

High Bridge Wind Project

The Facility is proposed to include the installation of up to 30 wind turbines, associated electrical collection lines and substation(s), access roads, wind measurement towers, and an Operations and Maintenance building. The Facility would interconnect to the New York State power grid at a 115-kV electrical transmission line currently owned by the New York State Electric and Gas Corporation ("NYSEG") in an area northeast of Guilford Lake. High Bridge also proposes to install battery storage.

For more information on the proposed Facility, please visit the Siting Board's website under Case 18-F-0262, or the Applicant's dedicated project website (http://www.calpine.com/highbridgewind). Hard copies of the PSS containing project details can also be found at the local document repositories listed at the end of this notice.

21-Day Public Comment and Response Periods

The PSS is designed to gather input from the public and interested agencies on the scope and methodology of studies to be conducted in support of a future Article 10 Application. The PSS filing will start a 21-day period where the public—any person, agency or municipality—may comment on the scope and methodology of the studies proposed. Comments on the PSS may be submitted to the Applicant with copy to the Secretary of the Department of Public Service at the addresses provided below.

The Applicant will prepare a summary of the material comments and its reply to those comments within 21 days after the closing of the comment period. The scoping process is overseen and mediated by a Hearing Examiner who will also schedule a pre-application meeting and provide additional notice for it. The pre-application meeting marks the beginning of stipulation negotiations and allows for the discussion and award of intervenor funding.

Intervenor Funding

To facilitate participation by local municipalities and community groups, High Bridge will provide $35,000 toward an intervenor fund. Funds will be disbursed by the Hearing Examiners to groups seeking assistance with expenses associated with their participation in the Article 10 process during the pre-application review phase. By law, at least 50 percent of these intervenor funds are reserved for impacted municipalities. Once the PSS is filed, the Hearing Examiners will issue a notice that such intervenor funds are available. The notice will describe the kinds of expenditures which are eligible for receipt of those monies and will provide instructions and a schedule for interested groups to apply for pre-application intervenor funds. Once the formal Article 10 Application is submitted, additional application-phase intervenor funding will be made available to facilitate municipal and party participation in the Application and Hearing phase.

Contact Information

To obtain information regarding the project, please contact:

Alec Jarvis
High Bridge Wind, LLC
Calpine Corporation
717 Texas Avenue, Suite 1000
Houston, TX 77002
Alec.jarvis@calpine.com
Toll Free Number: 1-866-681-3312

Contact information for the DPS public information coordinator:

James Denn
NYS Department of Public Service
3 Empire State Plaza
Albany, NY
(518)474-7080
james.denn@dps.ny.gov

Hard copies of the PSS and related project documents are available for review at the following local document repositories: Guilford Town Hall, 223 Marble Rd., Guilford, NY 13780; Guernsey Memorial Library, 3 Court Street, Norwich, NY 13865; Oxford Memorial Library, 8 Ford Hill, Oxford, NY 13830; and Gilbertsville Free Library, 17 Commercial Street, Gilbertsville, NY 13776.

Digital copies of the PSS and related project documents are available on the Siting Board's Docket for this case, which can be accessed by visiting http://www.dps.ny.gov/, going to "Search" on the top of the webpage and then searching using the Case Number 18-F-0262, or by going to the project website maintained by the Applicant at http://www.calpine.com/highbridgewind.

Requests for Notices

Any interested member of the public may file a request with the DPS Secretary to receive copies of all notices concerning the project, including but not limited to notices regarding any proposed pre-application stipulation. Written requests should be sent to the DPS Secretary at secretary@dps.ny.gov or sent by mail to the following address:

Honorable Kathleen H. Burgess
Secretary to the Commission
NYS Public Service Commission
Agency Building 3
Albany, New York 12223-1350

Notice of Open House for the High Bridge Wind Project

High Bridge Wind, LLC is pleased to invite you to attend an Open House regarding its proposed 100-megawatt wind energy generating facility in the Town of Guilford. The Open House will be held **Wednesday November 28, 2018** from 4 p.m. to 6 p.m. at:

Guilford Town Hall
223 Marble Road
Guilford, NY 13780

All members of the public are invited. At this Open House, project representatives will be available to provide information on the proposed project and to answer questions from members of the community.

More information on the High Bridge Wind Project can be found at http://www.calpine.com/highbridgewind and on the New York State Siting Board's website (http://www.dps.ny.gov/SitingBoard) under Case 18-F-0262. Copies of many materials discussed at this Open House will be available for public review on these websites following the event.

Hope to see you there!

Appendix B

Tracking Log

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
8/9/2017	Guilford Town Hall	Guilford Town Board and local residents	Project introduction	Presented current project development status, leasing efforts, anticipated field studies, overview of Article 10 process and intervenor funding mechanism, and project next steps. 25+ local residents attended with robust and productive Q+A period
2/28/2018	Email	USFWS, NYSDEC, and DOAS	Transmittal of preliminary workplans	Sent preliminary workplans for Eagle Use Survey and Raptor Migration Surveys.
4/3/2018	NYSERDA - Albany Office	NYSERDA	Project introduction	General meeting to discuss Calpine's existing generation facilities and planned developments in NY. Introduced the High Bridge Wind Project and development efforts to date.
4/17/2018	New York State Capital	State legislators with districts intersecting the proposed Facility Area as well as other legislators: Assembly Members - Donna Lupardo, Clifford Crouch, and Philip Palmesano; Senators - Thomas O'Mara, James Seward, Michael Ranzenhofer, Patrick Gallivan, Pamela Helming, Frederick Akshar, and Cathy Young.	Project Introduction	As part of annual ACENY Lobby Day, met with multiple legislators to discuss Calpine development efforts in NY, including the High Bridge Wind Project Article 10 process status and development status.
4/27/2018	Phone Call	USFWS	Survey Coverage Question	Call with USFWS to discuss percentage coverage for eagle point count surveys. Calpine agreed to increase coverage higher than 30%.
5/14/2018	Email	USFWS, NYSDEC, and DOAS	Transmittal of preliminary workplans	Sent and received approval for preliminary workplans for breeding bird surveys.
5/24/2018	Gilbertsville-Mt. Upton Elementary School	Multiple landowners in the Facility Area	Project introduction	Meeting with a group of landowners within the Facility Area to discuss project development status and leasing opportunities.
5/25/2018	Email	USFWS, NYSDEC, and DOAS	Transmittal of revised preliminary workplans	Sent and received approval for revised workplans for Eagle Use Surveys and Raptor Migration Surveys.
5/30/2018	n/a	New York State Office of the Attorney General	Code of conduct consultation	Execution of NYS Code of Conduct. Posted executed copy to http://www.calpine.com/highbridgewind/public-documents.

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
6/13/2018	Guilford Town Hall	Guilford Town Board and local residents	Project Update/Information Sharing Session	Presented current development status, ongoing field studies, anticipated field studies, overview of Article 10 process and intervenor funding mechanism. 50+ local residents attended with robust and productive Q+A period
6/14/2018	Conference Call	Guilford Town Supervisor	Discuss venue for upcoming public meeting	Call was to coordinate use of the Guilford Town Hall for the pre-PSS public information session tentatively planned for late-summer 2018.
7/11/2018	email	Alec Jarvis, George Seneck - Supervisor for the Town of Guilford	Stakeholder outreach	"George, I wanted to give you a heads up that I am reaching out ot the following people to introduce the project. I have a meeting set up with Mr. Wilcox at 10:30 am on Tuesday. Lawrence Wilcox - Chairman of the Board of Supervisors; Director of Planning Shane Butler; Real Property Tax Director Steven Harris; Guilford Highway Department Bob Fleming; Director of Public Works Sean Fry; Chenango County Highway Department Doug Parry. We identified these individuals as stakeholders in our PIP filing and I wanted to introduce myself and the project. Are you able to meet as well next week Monday or Tuesday? - Alec Jarvis"
7/11/2018	email	Alec Jarvis, George Seneck - Supervisor for the Town of Guilford	Re: Stakeholder outreach	"I will be able to meet you either Monday or Tues - Monday I will be at the town office from 10 until 1 or anytime that works for you. Monday eve I have a mtg. at 7:00 in Mt. Upton. Tues I have a meeting in Norwich at 10:00 and can meet at the co. office bldg. or back at the town hall afterwards. I have not recieved the agenda for Tuesday's meeting. I will be in at the town hall tomorrow Friday June 13 if you need anything. Thanks for the heads up, George"
7/12/2018	Phone Call	Senator Akshar's office	Set up a project update meeting with Alec	Was told to email the scheduling office; sent them an email
7/12/2018	Phone Call	Sean Fry, Director of the Chenago County Department of Public Works	Set up a project update meeting with Alec	He was out on a vacation; left a message; he has not called back
7/12/2018	Phone Call	Doug Parry, Deputy Director of Chenago County HWY Department	Set up a project update meeting with Alec	He was out; left a message; he has not called back
7/12/2018	Phone Call	Shane Butler, Director of Planning Chenago County Planning and Development	Set up a project update meeting with Alec	Spoke to his secretary, she said she would see if he could attend and call back

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
7/12/2018	Phone Call	Bob Fleming, Superintendent of the Guilford Highway Department	Set up a project update meeting with Alec	Was told to call at 6 am, tried calling at that time later in the week, no answer
7/12/2018	Phone Call	Lawrence Wilcox, Chairman of the Board of Supervisors Chenago County	Set up a project update meeting with Alec	Spoke to Mr. Wilcox, he confirmed a meeting with Alect the following Tuesday at 10:30 am and said he would invite Shane Butler and Steven Harris (Real Property Tax Director) to attend the meeting
7/16/2018	Guilford Town Office	Alec Jarvis, George Seneck - Supervisor for the Town of Guilford	in-person project update	Alec met with George to coordinate the use of the Guilford Town Hall for the High Bridge Public Meeting
7/16/2018	landowner's property	Alec Jarvis, landowner Pancoe	in-person project update	site walk of property
7/16/2018		Alec Jarvis, Paul Knowles - landowner	in-person project update	lease status negotiations
7/17/2018	Chenango County	Alec Jarvis, Larry Wilcox - Chairman of the Board of Supervisors for Chenago County, and Shane Butler - Director of Planning for Chenago County, Pat Heaton - EDR	In-person project update	The purpose of the meeting was to introduce the project to the County and provide a high-level overview of the Article 10 process. Shane Butler had some concerns relative to the Norwich and Sidney Airports, which are relatively close to the Facility Area. There is an emergency response helicopter based in Sidney that responds to regional emergencies; Shane asked that we keep that in mind. Also, the Norwich Airport may be considering an extension to one of their runways. Shane wanted to know how cell service would be affected by the wind turbines, and whether or not cell towers would be installed on the turbines. Shane mentioned a rumor that the NYSEC transmission line was going to be expanded - that another tower might be added. He asked if we were planning to coordinate with NYSEG. Alec said that Calpine was in contact with NYSEG and that he expected the High Bridge Wind Project to precede any NYSEG line updates. Lawrence asked if there was a relationship between the PILOT and job creation. Alec stated that the project would likely result in the employment of 3-4 office/management staff and 5-7 maintenance staff. Shane recommended reaching out directly to Delaware and Otsego Counties. The Chenango County Comprehensive Plan was mentioned, along with the Southern Tier 8 Regional Planning Board (Jen Gregory was specifically mentioned), the Agricultural Farmland Protection Plan, SEDS, and an Economic Development Study. Shane asked that we update his title on the Notification List.

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
7/18/2018	DPS offices, Albany, New York	In person: Alec Jarvis, representatives from DPS, DEC, DAM, Laura Bomyea (Young-Sommer), Greg Liberman and Dan Zvirzdin (EDR); on the phone: Bill Whitlock, Barbara McBRide, and Jill Van Dalen (Calpine) and Jason Rizert (West	in-person project update	Alec Jarvis introduced the High Bridge Wind Farm and gave a detailed description of the project. EDR provided an outline of where the project is in the Article 10 process and described the PIP outreach that had occurred to date. EDR and West discussed the status of the avian and bat studies for the project, including the submission of draft work plans to the USFWS. DAM asked that Farmland of Statewide Importance and Prime Farmland be provided in future mapping efforts and asked that the project team coordinate with the Chenango County Soil and Water Conservation Distrcit to identify the location of drainage tiles. DPS asked about major planned upgrades to the NYSEG interconnection. DPS asked the proximitiy of the wind farm to the NEXRAD weather radar at the Binghamton airport. DPS asked that a solar energy facility be considered as an alternative. DPS requested that the Stakeholder List in the PSS include all host and adjacent landowners. DPS recommeneded using Environmental Justice data available through the EPA.

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
7/20/2018	Email exchange	Alec Jarvis, David Dibbell - Member, Airport Steering Committee, cc: Shane Butler, Doug Marchant	Airport Steering Committee concern regarding airspace impacts	From David Dibbell: "Good day sir! We understand from Shane Butler, Director of Planning for Chenango County, that you visited earlier this week in Norwich, NY concerning the High Bridge Wind Project proposed to be located within the Town of Guilford. There is an Airport Steering Committee appointed by Chenango County to provide advice and recommendations concerning the airport, on which Shane participates and I am a member. Doug Marchant is the chairman and is also copied here. The Steering Committee has designated me to make and maintain contact concerning airspace impacts. From the PIP HB.pdf document, I see that the Lt. Warren E. Eaton Airport is listed as a stakeholder, so this is off to a good start. As Shane explained, the Committee has taken note of the proposed location and scope of the wind project, and would like to pay close attention to potential impacts on local and transient VFR flight, instrument approaches and departures, and related concerns. We understand there are review processes involving the FAA and the military, about which we also wish to be kept informed as they happen. We are looking forward to working with Calpine on this, and please let us know of any requests on your part. Sincerely, David Dibbell"
7/23/2018	Email exchange	Alec Jarvis, David Dibbell - Member, Airport Steering Committee, cc: Shane Butler, Doug Marchant	Reply to Airport Steering Committee concern regarding airspace impacts	From Alec Jarvis: "David, Thanks for reaching out. We are reaching out to our airspace consultant to ask a few questions and will plan to reach back out once we have dug into this a bit further. Thanks for your email and we will be in touch. Sincerely, Alec Jarvis"

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
7/23/2018	Email exchange	Sarah Bray - Public Relations Consultant for High Bridge, Fred Akshar - Senator Akshar's scheduler	Status of project update meeting	From Fred Akshar: "Hi Sarah, Sorry we couldn't make the meeting happen. The Senator's schedule was booked. The Senator's Chief of Staff is available in the future for updates. Thank you for understanding. The Scheduling Team" From Sarah Bray: "Thank you for getting back to me. Alec Jarvis would like to meet with Senator Akshar's Chief of Staff about the High Bridge Wind Farm and the Bluestone Wind Farm and will make hiself available any time for this meeting. Please let me know how your schedule looks in the next couple of weeks. Thank you. Sarah"
7/25/2018	Email exchange	Alec Jarvis, George Seneck - Supervisor for the Town of Guilford	Request Approved for Use of Guilford Town Hall	From George Seneck: "Alex, The town board approved your request pending receipt of your certificate of insurance. I will post the mtg. on our website and facebook page as soon as I receive your legal notice. Please let me know if you need anything. Thanks, George Seneck"
8/20/2018	phone call	Sarah Bray - Public Relations Consultant for High Bridge, George Seneck - Supervisor for the Town of Guilford	High Bridge Public Open House landowner letter update	Sarah called George to let him know we accidentally left the location of the public meeting off of the landowner letters. Sarah asked what we could do to mitigate that mistake. George told Sarah that we can drop off corrected post cards and a poster/flyer to be posted at his office. George let Sarah know that the Town Clerk would be available 8/21 from 9am to 1pm and then from 4-6:30 pm.
8/21/2018	in person meeting	John Palombaro, Geroge Seneck - Supervisor for the Town of Guilford	High Bridge Public Open House landowner letter update	John printed updated flyers and postcards. He brought the flyer to George to hang in his office. George told John that the best approach would be to place stacks of postcards and flyers at gas stations in Guilford and Mt. Upton. George also let John know that he was posting the public meeting location on the Guilford Facebook page as well.

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
8/22/2018	in person meeting	Alec Jarvis, Tom Smith - Oxford, NY NYSDOT Director	in-person project update	Alec and Tom met to discuss the High Bridge Wind Farm project and the project's permitting process for DOT permits related to turbine transport
9/12/2018	phone call	Sarah Bray, Anthony Capozzi - Chief of Staff to Senator Akshar	confirming project meeting with Alec	Sarah spoke with Anthony to confirm Alec's meeting with Senator Akshar on September 27, 2018
9/14/2018	email	Sarah Bray, Anthony Capozzi - Chief of Staff to Senator Akshar	confirming project meeting with Alec	Sarah sent Anthony an email to confirm Alec's meeting with Senator Akshar on September 27, 2018
9/19/2018	phone call and email	Erin Szalkowski, Perry Dewey - District Superintendent at DCMO BOCES	Set up a project update meeting with Alec	Erin left a message for Perry asking to set a meeting with Alec and followed up with this email: Hi Perry, Linda connected us by email earlier this week, and I wanted to reach out to discuss how the Visual Communications Class can participate in creating a logo for the proposed High Bridge Wind Farm. We love that idea and would enjoy working with the DCMO BOCES students. Additionally, Alec – the lead developer for High Bridge – will be in the area on September 27 and 28 and would like to meet with you to give you an update on the project if you are available. He is open the afternoon of the 27th and anytime on the 28th. Please let me know if there is anytime that fits with your schedule, and I will let Alec know. Here is some information about the project: The High Bridge Wind Farm, under development in the town of Guilford, Chenango County, New York, is anticipated to be an approximately 100-megawatt wind energy project comprising 19-24 wind turbines. The Public Involvement Plan, drafted as part of the High Bridge Wind Project's progress through the Article 10 application process, was filed in June of 2018. The High Bridge Wind Farm is owned by Calpine, America's largest generator of electricity from natural gas and renewable geothermal resources with operations in competitive power markets.

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
				Warm regards, Erin
9/20/2018	email	Sarah Bray, Catherine Seamon - Special Assistant/District Scheduler for Senator Steward	Set up a project update meeting with Alec	Sarah emailed Senator Steward's office asknig for a meeting with Alec Jarvis. Catherine responded that the Senator was unavailable for a meeting at that time.
9/20/2018	phone call	Erin Szalkowski, Bob Fleming - Superintendent of the Guilford Highway Department	Set up a project update meeting with Alec	Erin called Bob to arrange a meeting with Alec Jarvis. Bob let Erin know his schedule - she checked with Alec, called Bob back and left a message.

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
9/21/2018	email exchange	Sarah Bray, Sara Bouasay - Chief of Staff for Assembleyman Cliff Crouch	Set up a project update meeting with Alec	Sara Bouasay responded to Sarah Bray's email: Hello Sarah: I can assist you with your meeting request with Assemblyman Crouch for next week. I spoke with the Assemblyman and he can meet with Alec Jarvis on Friday, September 28th at 10am in his district office (1 Kattelville Road, Suite 1, Binghamton, NY 13901). Please let me know if this date and time works for your schedule, thank you. Sara
9/25/2018	phone call	Erin Szalkowski, Doug Parry - Deputy Director of the Chenango County HWY Depts	Set up a project update meeting with Alec	Erin called Doug to arrange a meeting with Alec Jarvis. Doug was not available to meet this week but is available to meet October 9 at 8 am. Erin said she would confirm with Alec and call back.
9/26/2018	phone call	Erin Szalkowski, Doug Parry - Deputy Director of the Chenango County HWY Depts	Set up a project update meeting with Alec	Erin called Doug to confirm the meeting with Alec Jarvis on October 9 at 8 am.
9/27/2018	in person meeting	Alec Jarvis, Senator Akshar	in person project update	Alec met with Senator Akshar to give him an update about the project
9/28/2018	in person meeting	Alec Jarvis, Assemblyman Clifford Crouch	in person project update	Alec met with Assemblyman Crouch to give him an update on the project
10/4/2018	phone call	Sarah Bray, Mike Wildenstein - Wildenstein Logging	local business opportunity	Sarah spoke with Mike regarding potential business opportunities related to the construction of the wind farm
10/4/2018	email exchange	Erin Szalkowski, Perry Dewey - District Superintendent at DCMO BOCES	Set up a phone call to discuss the High Bridge Wind Farm	Perry Dewey emailed Erin the following: Hi Erin, I am sorry that I have not gotten to touch base with you yet. My work schedule at the BOCES has been crazy! That said, I thought that I would send you an email with my contact information in it before I tried to call you. We may not connect and I didnt want to not contact you! So, my cell is 607-316-1637, 607-335-1231. I look forward to talking to you.

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
10/5/2018	email exchange	Erin Szalkowski, Perry Dewey - District Superintendent at DCMO BOCES	Set up a phone call to discuss the High Bridge Wind Farm	Erin replied to Perry the following: No worries at all – I know how that goes. I was out all day yesterday at a client event. How does your schedule look early next week? I'm available Monday morning except 10-11 central. Tuesday is free after 9:30 am central. If early morning works better for you, I have a one year old, so I am definitely awake. Let me know what's best for you and I will make it work. Regards, Erin
10/8/2018	phone call	Erin Szalkowski, Doug Parry - Deputy Director of the Chenango County HWY Depts	Confirm project meeting with Alec	Erin called Doug to confirm the meeting location and attendees. She spoke with a woman who told her Doug was not in the office on account of Columbus Day
10/9/2018	in person meeting	Alec Jarvis, Randy Reeves	in-person project update	Alec met with Randy Reeves and gave him an overview of the High Bridge Wind Farm project. Doug Parry was unable to attend.
10/17/2018	phone call	Erin Szalkowski, Perry Dewey - Superintendent of DCMO BOCES	discuss using students to help create the High Bridge Wind Farm logo, set up a project meeting with Alec	Erin called Perry to connect on the High Bridge Wind Farm project. She left a message with his administrative assistant
10/18/2018	phone call	Erin Szalkowski, Perry Dewey - Superintendent of DCMO BOCES	discuss using students to help create the High Bridge Wind Farm logo, set up a project meeting with Alec	Erin called Perry to connect on the High Bridge Wind Farm project. She left a message with his administrative assistant
10/24/2018	phone call	Sarah Bray, Alfred Gorick Jr. - Gorick Construction Company	local business opportunity	Sarah spoke with Alfred regarding potential business opportunities related to the construction of the wind farm
10/24/2018	phone call	Sarah Bray, Tim Ruffo - Barney and Dickenson Ready Mix	local business opportunity	Sarah spoke with Tim regarding potential business opportunities related to the construction of the wind farm
10/25/2018	email	Erin Szalkowski, Alex Larson - Chenango Economic Development Coordinator	set up a project meeting with Alec	Erin emailed Alex to request a meeting the afternoon of November 6th or the morning of November 8th.

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
10/30/2018	phone call	Erin Szalkowski, Perry Dewey - Superintendent of DCMO BOCES	set up a project meeting with Alec	Perry Dewey returned Erin's call. He told her to call his admin to set up a project update meeting with Alec.
11/1/2018	phone call	Sarah Bray, Perry Dewey - Superintendent of DCMO BOCES	set up a project meeting with Alec	Saray called and spoke with Perry to coordinate a meeting with Alec Jarvis
11/8/2018	in person meeting	Alec Jarvis, Perry Dewey - Superintendent of DCMO BOCES	in person project update	Alec met with Perry to give him a project update and ask about ways to work with BOCES regarding workforce development
11/28/2018	open house	Alec Jarvis, Sarah Bray, Jason Ritzert - WEST, Rob O'Neal - Epsilon Associates, Greg Liberman and Daniel Zvirzdin - EDR, Lisa Oliver - Fisher Associates, James Klickovich - Calpine, John Palombaro - J.S. Land Serivces, various landowners	open house	The High Bridge Wind Farm held a public open house to provide landowners with project updates and answer questions
12/13/2018	phone call	Alec Jarvis, George Seneck - Supervisor for the Town of Guilford	January meetings	Alec and George had a phone call to discuss upcoming meetings for High Bridge in January 2019
12/13/2018	email	Alec Jarvis, BOCES	workforce development opportunities	Alec reached out to BOCES to discuss setting up a meeting for workforce development opportunities
2/8/2019	Notice of Intervenor Funding and Comment Deadline	General Public	Notify the public of the availability of intervenor funding and the deadline for submitting comments on the High Bridge PSS.	The notice was published in the Evening Sun and Norwich Pennysaver, was mailed to the Stakeholder List and to landowners within and adjacent to the Facility Area presented in the PIP, and was posted on the High Bridge Wind Project website.
2/14/2019	Project Update, 2 Chenango Commerce, Norwich	Town Supervisor Guilford (George Seneck), Guilford Bainbridge School District Supervisor (Timothy Ryan) and Gilbertsville-Mt. Upton School District	PILOT Discussion	
2/28/2019	Notice of Extension of Schedule for Intervenor	General Public	Notify the public of the extension of deadline to submit intervenor funding requests.	

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
	Funding Requests			
3/20/2019	Pre-Application Procedural Conference, Guilford Town Hall	General Public, ALJ Erika Bergen (DPS), ALJ Daniel O'Connell (DEC)	To identify interested parties, discuss requests for intervenor funding, and launch stipulations process.	
Ongoing	Multiple Locations	Landowners in the Facility Area	Landowner Lease Agreement Efforts	Meetings are ongoing.

Appendix C

Certificate of Formation

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED ARE TRUE AND CORRECT COPIES OF ALL DOCUMENTS ON FILE OF "HIGH BRIDGE WIND, LLC" AS RECEIVED AND FILED IN THIS OFFICE.

THE FOLLOWING DOCUMENTS HAVE BEEN CERTIFIED:

CERTIFICATE OF FORMATION, FILED THE TWENTY-FIRST DAY OF FEBRUARY, A.D. 2018, AT 5:21 O`CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID CERTIFICATES ARE THE ONLY CERTIFICATES ON RECORD OF THE AFORESAID LIMITED LIABILITY COMPANY, "HIGH BRIDGE WIND, LLC".

6764819 8100H
SR# 20187899066

Authentication: 204000616
Date: 11-30-18

You may verify this certificate online at corp.delaware.gov/authver.shtml

State of Delaware
Secretary of State
Division of Corporations
Delivered 05:21 PM 02/21/2018
FILED 05:21 PM 02/21/2018
SR 20181211029 - File Number 6764819

CERTIFICATE OF FORMATION
OF
LIMITED LIABILITY COMPANY

FIRST. The name of the limited liability company is High Bridge Wind, LLC.

SECOND. The address of its registered office in the State of Delaware is 251 Little Falls Drive, County of New Castle, Wilmington, DE 19808. The name of its Registered Agent at such address is Corporation Service Company.

IN WITNESS WHEREOF, the undersigned have executed this Certificate of Formation of High Bridge Wind, LLC this 21th day of February, 2018.

BY: /s/Kelvin Chung
Authorized Person(s)

NAME: Kelvin Chung
(Type or Print Name)

Appendix D

Stakeholder List

Primary Addressee	Attention	Street	City	State	Zipcode
Bainbridge-Guilford School District	Timothy Ryan, Superintendent of School	18 Juliand Street	Bainbridge	NY	13733
Borden Hose Co.	David Button, Chief	1698 NY-8	Mt. Upton	NY	13809
Chenango Bird Club	Charlene LaFever, Club President	3683 County Rd 32	Oxford	NY	13830
Chenango County	Mary Weidman, County Clerk	5 Court Street	Norwich	NY	13815
Chenango County	Lawrence Wilcox, Chairman of the Board of Supervisors, RC Woodford, Clerk of the Board	5 Court Street	Norwich	NY	13815
Chenango County Bureau of Fire and Emergency Management	Matthew Beckwith, Fire Coordinator Car 1	279 County Rd 46	Norwich	NY	13815
Chenango County Department of Public Works	Sean Fry, Director	79 Rexford Street	Norwich	NY	13815
Chenango County Farm Bureau	Bradd Vickers, President	6083 State Hwy 12 N	Norwich	NY	13815
Chenango County Highway Department	Doug Parry, Deputy Director of Highway Department	79 Rexford Street	Norwich	NY	13815
Chenango County Parks and Recreation		5 Court Street	Norwich	NY	13815
Chenango County Planning and Development	Shane H. Butler, Director of Planning	5 Court Street	Norwich	NY	13815
Chenango County Public & Environmental Health	Isaiah Sutton, Director of Environmental Health,	5 Court Street	Norwich	NY	13815
Chenango County Sheriff's Office	Earnest R. Cutting, Jr., Sheriff	279 County Road 46	Norwich	NY	13815
Chenango County Soil & Water Conservation District	Lance Lockwood, District Manager	99 North Borad Street	Norwich	NY	13815
City of Norwich	Christine A. Carnrike, Mayor	One City Plaza	Norwich	NY	13815
Cornell Cooperative Extension Chenango		99 North Broad Street	Norwich	NY	13815-1386
County of Chenango Industrial Development Agency	Steve Craig, President and CEO	15 South Broad Street	Norwich	NY	13815
Delaware Otsego Audubon Society	Becky Gretton, Program Director	PO Box 544	Oneonta	NY	13820
Empire State Development Corporation	Donna Howell, Southern Tier Regional Director	44 Hawley St., Room 1508	Binghamton	NY	13901
Empire State Development Corporation	Howard Zemsky, President and CEO	625 Broadway	Albany	NY	12245
Enterprise Products Partners L.P.		1100 Louisiana Street	Houston	TX	77002
Gilbertsville-Mount Upton Central School District	Annette Hammond, Superintendent/CSE	693 State Highway 51	Gilbertsville	NY	13776
Guilford Fire Department	Ken Haynes, Fire Chief	289 County Road 37	Guilford	NY	13780

Primary Addressee	Attention	Street	City	State	Zipcode
Guilford Highway Department	Robert Fleming, Superintendent	223 Marble Road	Guilford	NY	13780
Lt. Warren E. Eaton Airport		6390 State Highway 12	Norwich	NY	13815
Maxey, William John		wj.maxey@gmail.com			
National Park Service	Kris Heister, Superintendent	274 River Road	Beach Lake	PA	18405
National Telecommunications and Information Administration	David J. Redl, Assistant Secretary of Communications and Information	1401 Constitution Avenue NW	Washington	DC	20230
New York Agricultural Land Trust	Nancy Hourigan, Board Chair	PO Box 216	Elbridge	NY	13060
New York Independent System Operator	Michael Bemis, Board Chair	10 Krey Boulevard	Rensselaer	NY	12144
New York Public Interest Research Group (NYPIRG) - Binghamton Chapter	State University College University Union	Box 2000	Binghamton	NY	13902
New York State Assembly	Clifford W. Crouch, Assembly Member, District 122	1 Kattelville Road, Suite 1	Binghamton	NY	13901
New York State Attorney General	Barbra Underwood, Acting NYS Attorney General	State Capitol Building	Albany	NY	12224
New York State Department of Agriculture and Markets	Richard Ball, Commissioner	10B Airline Drive	Albany	NY	12235
New York State Department of Environmental Conservation	Basil Seggos, Commissioner	625 Broadway	Albany	NY	12233
New York State Department of Environmental Conservation Region 7	Matt Marko, Regional Director	615 Erie Blvd. West	Syracuse	NY	13204-2400
New York State Department of Health	Howard A. Zucker, Commissioner	Corning Tower, Empire State Plaza	Albany	NY	12237
New York State Department of Public Service	Kathleen Burgess, Secretary to the Commission	Agency Building 3, Empire State Plaza	Albany	NY	12223
New York State Department of Public Service	James Denn, Public Information Officer	Agency Building 3, Empire State Plaza	Albany	NY	12223
New York State Department of Public Service	Lorna Gillings, Outreach Contact	Agency Building 3, Empire State Plaza	Albany	NY	12223
New York State Department of Public Service	John Rhodes, Chair of the Public Service Commission	Agency Building 3, Empire State Plaza	Albany	NY	12223
New York State Department of Public Service	Andrea Cerbin, Office of General Counsel	Agency Building 3, Empire State Plaza	Albany	NY	12223
New York State Department of Public Service	Andrew Davis, Office of Electric, Gas, and Water	Agency Building 3, Empire State Plaza	Albany	NY	12223
New York State Department of State	Rossana Rosado, Secretary of State	One Commerce Place, 99 Washington Avenue	Albany	NY	12231-0001

Primary Addressee	Attention	Street	City	State	Zipcode
New York State Department of Transportation	Robert Sack, Director	50 Wolf Road	Albany	NY	12232
New York State Department of Transportation	Jack Williams, P.E, Regional Director	44 Hawley Street	Binghamton	NY	13901
New York State Division of Homeland Security and Emergency Services	Roger Parrino, Commissioner	1220 Washington Ave	Albany	NY	12226
New York State Electric and Gas	Carl A. Taylor, President and Chief Executive Officer	P.O. Box 5224	Binghamton	NY	13902-5224
New York State Energy Research and Development Authority (NYSERDA)	Kelly Tyler, Director of Communities and Local Government	17 Columbia Circle	Albany	NY	12203-6399
New York State Governor's Office	Andrew Cuomo, Governor of NY	NY State Capitol Building	Albany	NY	12224
New York State Office of Parks, Recreation and Historic Preservation	Rose Harvey, Commissioner	625 Broadway	Albany	NY	12207
New York State Senate	Frederick J. Akshar II, NYS Senator, 52nd District	1607 State Office Building, 44 Hawley Street	Binghamton	NY	13901
New York State Senate	James Seward, NYS Senator, 51st District	41 South Main Street	Oneonta	NY	13820
Norwich Department of Public Works	George Carnrike Jr., Assistant Superintendent	Hale Street	Norwich	NY	13815
Norwich Fire Department	Tracy Chawgo, Fire Chief	31 East Main Street	Norwich	NY	13815
Norwich Planning and Community Development		One City Plaza	Norwich	NY	13815
Norwich School District	Gerard O'Sullivan, Superintendent	89 Midland Drive	Norwich	NY	13815
Oneida Indian Nation	Raymond Halbritter, Nation Representative for Government-to-Government Consultation	5218 Patrick Road	Verona	NY	13478
Oneida Indian Nation	Stephen J. Selden, Esq., Member of General Council, Designated Environmental/NEPA/Legal Rep.	5218 Patrick Road	Verona	NY	13478
Oneida Nation of Wisconsin	Ed Delgado, Chairman, Designated representative	P. O. Box 365	Oneida	WI	54155-0365
Oneida Nation of Wisconsin	Corina Williams, THPO, Designated Environmental/NEPA/Section 106/Project Rep.	P. O. Box 365	Oneida	WI	54155-0365
Otsego County	Kathy Sinnott Gardner, County Clerk	197 Main Street	Cooperstown	NY	13326

Primary Addressee	Attention	Street	City	State	Zipcode
Otsego County	David Bliss, Board of Representatives Chair	197 Main Street	Cooperstown	NY	13326
Otsego County Farm Bureau	Paul Greer, President	PO Box 76	Roseboom	NY	13450
Otsego County Planning Department	Karen Sullivan, Director	197 Main Street	Cooperstown	NY	13326
Oxford Academy & Central School District	Shawn Bissetta, Superintendent	12 Fort Hill Park	Oxford	NY	13830
Sidney Central School District	William Christensen, Superintendent	95 West Main Street	Sidney	NY	13838
Sidney Municipal Airport		199 River St	Sidney	NY	13838
Sierra Club-Susquehanna Group	Scott Lauffer, Chair	17 Nanticoke Ave	Endicott	NY	13760
Southern Tier East Regional Planning Development Board	Jennifer Gregory, Director	49 Court Street, Suite 222	Binghamton	NY	13901-3274
Susquehanna River Basin Commission	Andrew D. Dehoff, Executive Director	4423 N. Front Street	Harrisburg	PA	17110-1788
The Nature Conservancy - Eastern NY	Rick Werwaiss, Executive Director	195 New Karner Road, Suite 201	Albany	NY	12205
The Wetlands Trust	Jim Curatolo, Director	4729 State Route 414	Burdett	NY	14818
Town of Bainbridge	Town Supervisor, Dolores Nabinger	15 N Main Street	Bainbridge	NY	13733
Town of Butternuts	Town Supervisor, Bruce Giuda	1234 State Highway 51	Gilbertsville	NY	13776
Town of Guilford	George Seneck, Town Supervisor	223 Marble Road	Guilford	NY	13780
Town of Morris	Supervisor, Lynn Joy	P.O. Box 117	Morris	NY	13808
Town of New Berlin	Robert T. Starr, Town Supervisor	P.O. Box 204	New Berlin	NY	13411
Town of Norwich	Town Supervisor, Dave Evans	157 County Road 32A	Norwich	NY	13815
Town of Oxford	Lawrence Wilcox, Supervisor	P.O. Box 271	Oxford	NY	13830
Town of Preston	Peter C. Flanagan, Town Supervisor	299 Preston Center Road	Oxford	NY	13830
Town of Unadilla	Town Supervisor, George DeNys	P.O. Box 455	Unadilla	NY	13849
Tuscarora Environmental Program (Tuscarora Nation)	Neil Patterson, Jr., Director, designated representative for Environment/NEPA	2045 Upper Mountain Road	Sanborn	NY	14132
Tuscarora Indian Nation	Leo Henry, Chief, Government-to-Government Consultation Section 106, and projects	2006 Mt. Hope Road	Vis Lewiston	NY	14092
Unadilla Valley Central School District	Robert J. Mackey, Superintendent	4238 State Highway 8, PO Box F	New Berlin	NY	13411
Unatego Central School District	David Richards, Superintendent of Schools	2641 State Highway 7, P.O. Box 483	Otego	NY	13825
Upper Susquehanna Conservation Alliance	David Stilwell, Chairman	3817 Luker Road	Cortland	NY	13045
US Army Corps of Engineers	Steve Metivier, Chief, NY Application Evaluation Section	1776 Niagara Street	Buffalo	NY	14207

Primary Addressee	Attention	Street	City	State	Zipcode
US Congress	Anthony Brindisi, Representative, District 22	PO Box 165	Utica	NY	13503
US Congress	Antonio Delgado, Representative, District 19	256 Clinton Ave	Kingston	NY	12401
US Department of Defense Siting Clearinghouse	Steven J. Sample, Mission Evaluation Branch	3400 Defense Pentagon, Room 5C646	Washington	DC	10301
US Federal Aviation Administration	Steve Urlass, Eastern Region Director	1 Aviation Plaza	Jamaica	NY	11434
US Fish and Wildlife Service: New York Ecological Services Field Office		3817 Luker Road	Cortland	NY	13045
US Senate	Charles E. Schumer, US Senator	15 Henry Street, Room 100AF	Binghamton	NY	13901
US Senate	Kirsten E. Gillibrand, US Senator	100 South Clinton Street, P.O. Box 7378	Syracuse	NY	13261-7378
Village of Gilbertsville	Ken Nolan, Mayor	PO Box 146	Gilbertsville	NY	13776
Village of Oxford	Terry M. Stark, Mayor	20 LaFayette Park, P.O. Box 866	Oxford	NY	13830-0866

Appendix E

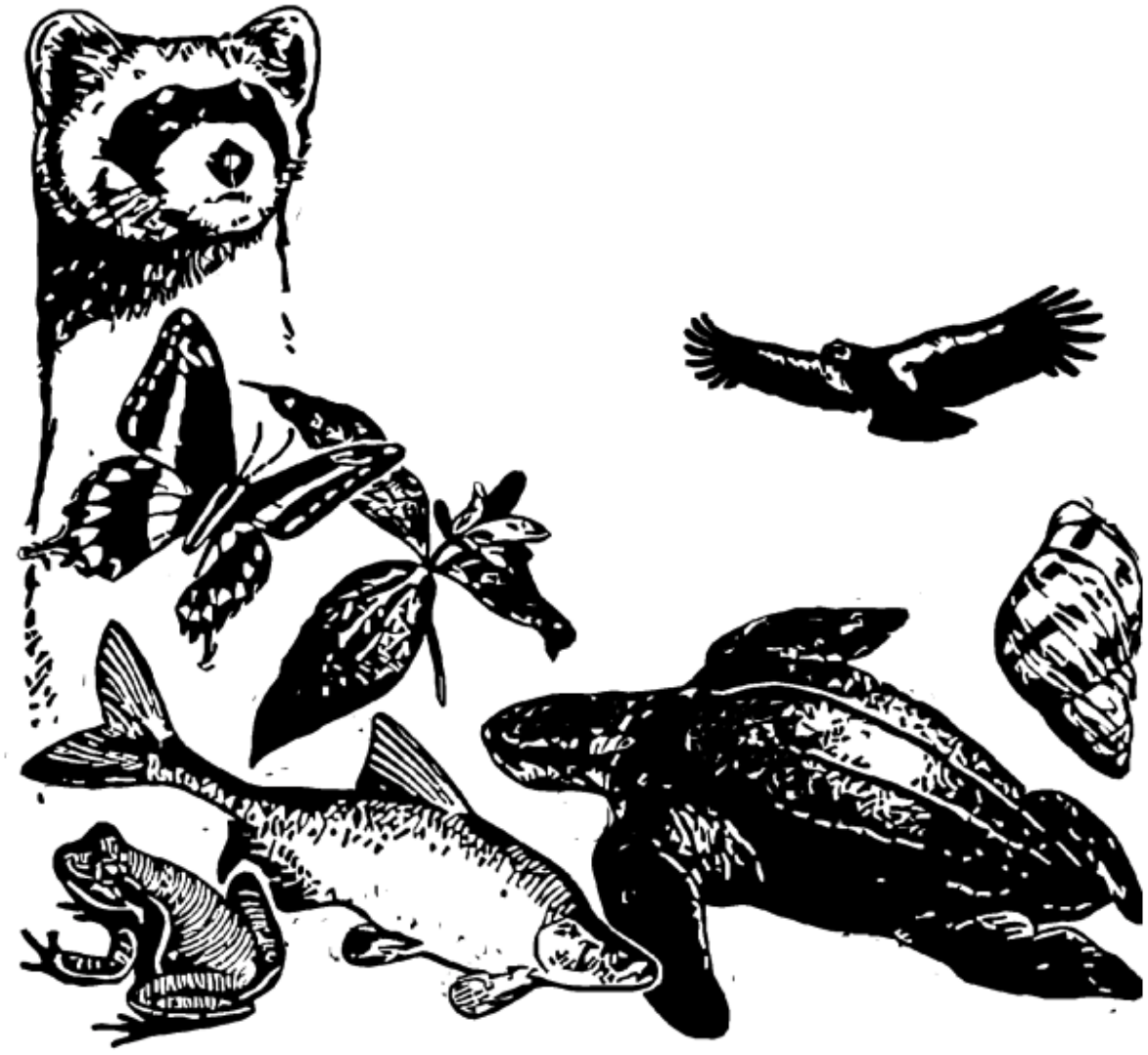
United States Fish and Wildlife Service
Information, Planning, and Consultation System Data

U.S. Fish & Wildlife Service

IPaC Trust Resources Report

Generated August 16, 2016 08:10 AM MDT, IPaC v3.0.8

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



IPaC - Information for Planning and Conservation (https://ecos.fws.gov/ipac/): A project planning tool to help streamline the U.S. Fish & Wildlife Service environmental review process.

Table of Contents

U.S. Fish & Wildlife Service

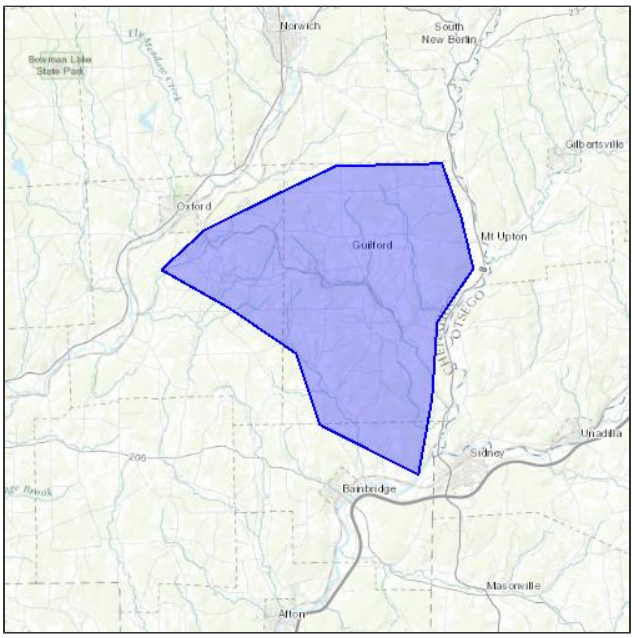
IPaC Trust Resources Report

LOCATION

Chenango County, New York

IPAC LINK

https://ecos.fws.gov/ipac/project/BPUJI-77TVN-FIRDL-5HFXA-YGXGQE



U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9349
(607) 753-9334

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the Endangered Species Program of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Mammals

Northern Long-eared Bat Myotis septentrionalis — Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=A0JE

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.[1] There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

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1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern
  http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Conservation measures for birds
  http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Year-round bird occurrence data
  http://www.birdscanada.org/birdmon/default/datasummaries.jsp

The following species of migratory birds could potentially be affected by activities in this location:

American Bittern Botaurus lentiginosus — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F3

Bald Eagle Haliaeetus leucocephalus — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B008

Black-billed Cuckoo Coccyzus erythropthalmus — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HI

Blue-winged Warbler Vermivora pinus — Bird of conservation concern
Season: Breeding

Canada Warbler Wilsonia canadensis — Bird of conservation concern
Season: Breeding

Cerulean Warbler Dendroica cerulea — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B09I

Golden-winged Warbler Vermivora chrysoptera — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0G4

Least Bittern Ixobrychus exilis
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B092

Louisiana Waterthrush Parkesia motacilla — Bird of conservation concern
Season: Breeding

Olive-sided Flycatcher Contopus cooperi — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0AN

Peregrine Falcon Falco peregrinus — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU

Pied-billed Grebe Podilymbus podiceps — Bird of conservation concern
Season: Breeding

Prairie Warbler Dendroica discolor — Bird of conservation concern
Season: Breeding

Red-headed Woodpecker Melanerpes erythrocephalus — Bird of conservation concern
Season: Breeding

Short-eared Owl Asio flammeus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD

Willow Flycatcher Empidonax traillii — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F6

Wood Thrush Hylocichla mustelina — Bird of conservation concern
Season: Breeding

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

This location overlaps all or part of the following wetlands:

Freshwater Emergent Wetland

PEM1/SS1B
PEM1/SS1C
PEM1/SS1E
PEM1A
PEM1B
PEM1C

PEM1Ch
PEM1E
PEM1Eb
PEM1Ed
PEM1Eh
PEM1F
PEM1Fb
PEM1Fh
PEM1Fx

Freshwater Forested/shrub Wetland

PFO1/4C
PFO1/4E
PFO1/SS1A
PFO1/SS1E
PFO1A
PFO1C
PFO1E
PFO1Eb
PFO4/1E
PFO4A
PFO4E
PFO4Eb
PFO5Fb
PFO5Fh
PSS1/EM1A
PSS1/EM1E
PSS1/FO1E
PSS1A
PSS1B
PSS1C
PSS1E
PSS1Eb
PSS1Eh
PSS1F
PSS1Fh
PSS3/1E

PSS4/1E

Freshwater Pond

PUB/EM1Fh
PUBF
PUBFb
PUBFh
PUBFx
PUBHb
PUBHh
PUBHx
PUSCh

Lake

L1UBH
L1UBHb
L1UBHh

Riverine

R2UBH
R3UBH
R4SBC
R5UBH

A full description for each wetland code can be found at the National Wetlands Inventory website: http://107.20.228.18/decoders/wetlands.aspx

Appendix F

Visual Impact Rating Form

Visual Impact Rating Form

Project Name

Town, County, State

EDR Project No: 00000

Rating Panel Information:

Your Name:

Date:

www.edrdpc.com

Existing Photo

Simulation

Viewpoint Information:

Viewpoint Number:

Viewpoint Location:

Landscape Similarity Zone:

Viewer Type:

Inventoried Aesthetic Resource:

Latitude:

Longitude:

Viewpoint Sensitivity:

Scenic Quality: (*Please rate existing scenic quality)*

☐ Low ☐ Moderate ☐ High

Viewer Exposure: (*Please rate frequency and duration of view)*

☐ Continuous ☐ Repeated/Regular

☐ Occasional/Brief ☐ Rare

Viewer Description: (*Please describe this view in your own words.)*

_____

_____

_____

_____

_____

_____

Contrast Rating:

(Please rate the level of contrast between the proposed structures and the existing view.)

Component	Score	Description of Contrast
Landform		
Vegetation		
Land Use		
Water		
Sky		
Viewer Activity		
TOTAL		*Total all scores above*
AVERAGE		*Average all scores above*

Contrast Rating Score Chart

0	Insignificant
.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Viewpoint

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

Perceived effect on scenic quality/viewer enjoyment:

Appendix G

Proposed Map Sizes and Scales

Preliminarily Proposed Map Sizes and Scales for Article 10 Application Printed Maps

Exhibit	Title	Format	Extents	Scale (mi/in)	Scale (ft/in)	Scale (in/in)	Size	# Sheets	16 NYCRR Ref.
3	Layout	PDF	PA	0.4	2,000	24000 *	B	TBD	1001.3 (a) (1) & (4)
3	Study Area	PDF	SA	0.4	2,000	24000 *	B	TBD	1001.3 (a) (5)
3	Towns	PDF	PA	0.4	2,000	24,000	B	TBD	1001.3
3	School Districts	PDF	PA	1	5,280	63,360	B	TBD	1001.3 (b)
3	Fire Districts	PDF	PA	1	5,280	63,360	B	TBD	1001.3 (b)
3	Project Location	PDF	PA	0.4	2,000	24,000	B	TBD	1001.3 (b)
4	Land Use Map	PDF	PA	0.2	1,000	12,000	B	TBD	1001.4 (a)
4	Utility Infrastructure Map	PDF	SA	1	5,280	63,360	B	TBD	1001.4 (b)
4	Land Ownership Map	PDF	PA	0.2	1,000	12,000	B	TBD	1001.4 (c)
4	Zoning Districts (if applicable)	PDF	SA	1	5,280	63,360	B	TBD	1001.4 (d)
4	Proposed Land Uses	PDF	PA	1	5,280	63,360	B	TBD	1001.4 (f)
4	Agricultural Districts	PDF	SA	1	5,280	63,360	B	TBD	1001.4 (g)
4	Utility Infrastructure Map	PDF	SA	1	5,280	63,360	B	TBD	1001.4(h)
4	Recreation and other uses	PDF	SA	1	5,280	63,360	B	TBD	1001.4 (h)
4	Aerial Photographs and Vegetation Clearing Map	PDF	SA	0.2	1,000	12,000	B	TBD	1001.4 (m) & (n)
9	Alternative Sites	PDF	TBD	0.4	2,000	24,000	B	TBD	1001.9 (a)
9	Alternative wind project layout(s)	PDF	TBD	0.02	100	1,200	D2	TBD	1001.9 (c) (4)
11	Overall Site Plan for all facilities	PDF	TBD	0.02	100	1,200	D2	TBD	1001.11 (a)
11	Site Plans (may range from 1" = 30' to 1"-100' scales, where appropriate)	PDF	PA	0.02	100	1,200	D2	TBD	1001.11 (a)
11	Site Plan for Project Substation	PDF	TBD	0.02	100	1,200	TBD	TBD	1001.11 (a)
11	Site Plan for O&M Building	PDF	TBD	0.02	100	1,200	TBD	TBD	1001.11 (a)
11	Site Plan for Batch Plant	PDF	TBD	0.02	100	1,200	TBD	TBD	1001.11 (b)
11	Site Plan for Laydown Yard	PDF	TBD	0.02	100	1,200	TBD	TBD	1001.11 (b)
11	Site Plan for Typical Wind Turbine Assembly Area During Construction	PDF	TBD	0.02	100	1,200	TBD	TBD	
11	Site Plan for POI Switchyard	PDF	TBD	0.02	100	1,200	TBD	TBD	1001.11 (h)
11	Transmission Line Plan and Profile, Route Plan	PDF	TBD	0.04	200	2,400	B	TBD	1001.11 (h)
13	Real Property	PDF	PA	0.2	1,000	12,000	B	TBD	1001.13 (a) & (b)
15	Public Health and Safety	PDF	SA	1	5,280	63,360	B	TBD	1001.15 (f)
18	Security Site Plan	PDF	TBD	0.02	100	1,200	TBD	TBD	1001.18 (a) (1) & (4); (b) (1) & (5)
19	Noise contour map	PDF	PA	0.2	1,000	12,000	D2	TBD	1001.19 (a)
21	Slopes	PDF	PA	1	5,280	63,360	B	TBD	1001.21 (a)
21	Soil Types	PDF	PA	0.4	2,000	24,000	B	TBD	1001.21 (o)
21	Bedrock	PDF	PA	2	10,560	126,720	B	TBD	1001.21 (q)
22	Plant Community Map	PDF	PA	0	167	2,000	B	TBD	1001.22(a)
22	Delineated Wetlands Map	PDF	PA	0.4	2,000	24,000	B	TBD	1001.22 (i)
23	Water Resources - Groundwater	PDF	PA	0.4	2,000	24,000	B	TBD	1001.23 (a) (2)
23	Water Resources - Surface Waters	PDF	PA	0.4	2,000	24,000	B	TBD	1001.23 (b) (1)
23	SWPPP (preliminary)	PDF	PA	0.02	100	1,200	D2	TBD	1001.23 (c) (1) & (2)
24	Viewshed map(s)	PDF	SA 10mi	0.4	2,000	24,000 *	B	TBD	1001.24 (b) (1)
25	Site plan access roads	PDF	TBD	0.02	100	1,200	D2	TBD	1001.25 (a) (2)
26	Microwave Paths - Facilities near paths shown in greater detail	PDF	PA	2.6	13,750	165,000	A	TBD	1001.26 (a) (5)
28	Potential Environmental Justice Area Map	PDF	SA	2	10,560	126,720	B	TBD	1001.28 (a)
35	EMF and residences	PDF	TBD	0.02	100	1,200	D2	TBD	1001.35 (c)

Notes: PA = Project Area, SA= Study Area, Size A = 8.5”x11”, Size B = 11”x17”, Size C = 18”x24”, Size D2= 22”x34”, Size D=24”x36”

*** Denotes scale requirements of Part 1001 *Content of an Application***

All maps will be delivered in PDF format with the Article 10 application, and shape files or CAD files can be supplied where requested.

All scales above are proposed based on preliminary analysis and may need to be adjusted based on actual data.

Appendix H

Avian Work Plans

2018 Breeding Bird Survey Protocol

Eagle Use Survey Study Protocol

Raptor Migration Survey Protocol

2018 Breeding Bird Survey Protocol
High Bridge Wind Project
Chenango County, New York

Prepared for:

Calpine Wind Holdings, LLC

Prepared by:

Jason Ritzert, Michelle Ritzert, and Guy DiDonato

Western EcoSystems Technology, Inc.
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May 2018

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LIST OF FIGURES

INTRODUCTION

Calpine Wind Holdings, LLC (Calpine) is considering the development of a wind project in Chenango County, New York known as the High Bridge Wind Project (the Project). Calpine has asked Western EcoSystems Technology, Inc. (WEST) to develop a protocol to conduct breeding bird surveys (BBS) at the Project. The New York State Department of Environmental Conservation (NYSDEC) recommends that wind developers follow the NYSDEC Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Project (NYSDEC 2013). The following protocol was developed in accordance with the NYSDEC Guidelines for breeding bird surveys.

METHODS

Breeding Bird Surveys

The objectives of the BBS at the Project are to: 1) determine if state- or federally listed passerine species breed near areas where turbines will be erected, and 2) provide information for a Before-After-Control-Impact (BACI) assessment to compare bird use pre- and post-construction. The focus of the surveys will be on passerines (i.e., songbirds); however, any birds observed or heard will be recorded. The study approach involves a combination of a gradient analysis study design and control areas. Songbird density data and vegetation data will be collected along a continuum out to 300 meters (m; 984 feet [ft]) at proposed turbine locations as well as control transects in areas away from turbine development (Figure 1).

A sample of 9 (~38%) of the proposed turbine locations with land access were selected for the surveys. In addition, five control transects were selected in nearby areas away from proposed turbine locations (greater than 800 m [2,625 ft]) with similar vegetation and land access. Surveys will be a combination of transects and point-count surveys. Each transect will start at the base of the proposed turbine (or start of the control transect) and extend out 300 m with a point-count location at the base of the proposed turbine location and every 50 m (164 ft) along the transect. Survey point will be located at 25 m (82 ft), 75 m (246 ft), 125 m (410 ft), 175 m (574 ft), 225 m (738 ft), and 275 m (902 ft). As the biologist walks along each transect, all birds seen or heard will be recorded (i.e., incidental observations). At each point-count location the biologist will stop and complete a 5 minute survey to record all birds seen or heard. Each transect will be surveyed weekly from May 20 to July 20, 2017.

All surveys will be completed from one half hour before sunrise (i.e., first light) until 1000. Surveys will not be completed in inclement weather that may impair bird observations such as rain or strong winds (greater than 24 kilometers per hour [15 miles per hour]). Data recorded for each survey will include: start and end time of the observation period; and weather information such as temperature, wind speed, wind direction and cloud cover. Species identification, number of individuals of each species, method of observation (visual or auditory), and behavior (nesting, flying, perching, singing, other) will be recorded for each observation. The approximate

distance to each bird will be recorded. Observers will record all birds seen but will focus on birds within 50 m of both sides of each transect.

Statistical Analysis of Baseline Data

Data Compilation and Storage

A database will be established to store, retrieve, and organize field observations. Data from field forms will be keyed into electronic data files using a pre-defined format that should make subsequent data analysis straightforward. All field data forms and electronic data files will be retained for ready control.

Quality Assurance/Quality Control (QA/QC)

QA/QC measures will be implemented at all stages of the study, including field data collection, data entry, data analysis, and report preparation. At the end of each survey day, the observer will be responsible for inspecting his or her data forms for completeness, accuracy, and legibility. Periodically, the study team leader will review data forms to insure completeness and legibility; any problems detected will be corrected. Any changes made to the data forms will be initialed and dated by the person making the change.

Data will be checked thoroughly for data entry errors. Any errors will be corrected by referencing the raw data forms and/or consulting with the observer who collected the data. Any irregular codes detected, or any data suspected as questionable, will be discussed with the observer and study team leader. Any changes made to the raw data will be documented for future control.

Statistical Analysis and Products

A gradient analysis (Morrison et al. 2001) will be used to determine the relationship between density of avian species and distance from turbines. The gradient analysis will assess whether a significant relationship exists between distance from Project turbines and abundance or use of the area by species. The averages of these differences by distance category can be compared against the null hypothesis value of zero using *t*-tests and confidence intervals to test whether a change in density is statistically significant and to identify the distance from the turbines at which it occurred. Further analysis using linear regressions and/or line-distance sampling may be completed. Data will be pooled across transects within similar vegetation types (e.g., closed [forested and shrubland] and open [hayfields and pasture] habitats).

In addition, NYSDEC metrics of interest that will be included in the report:

- The number, location and length of each potential turbine and control transect;
- The overall survey period, date, time, and durations of surveys conducted at each point;
- A description of habitat surrounding each transect;
- The number of species observed overall;
- The total number of individuals of each species observed overall;

- The number of individuals of each species observed at each transect point;
- A summary of the number and behavior of birds seen;
- Which birds were identified visually or via vocalizations;
- The point(s) and transect(s) with the highest and lowest: number of species, species diversity, frequency, and abundance;
- The habitat type(s) with the highest and lowest: number of species, species diversity, frequency, and abundance;
- A description of weather conditions during and immediately prior to survey days;
- A list of all species with dates and point where they were observed;
- The number and identification of the observer(s) conducting each survey;
- A description of any disruptions and/or distractions that occurred during each sampling period that may have precluded an adequate survey;
- A detailed discussion of all methods, results, and recommendations (throughout report);
- One or more tables and graphs, as needed, depicting the above information, as well as all species with the dates and points where they were observed, the locations of proposed or existing turbines and other project components;
- One or more maps, as needed, which displays all observations of all individuals of state and federally listed species, species of concern, species of greatest conservation need (SGCN), and any other species targeted at the site (Results Section and Figure 3). Detailed information on the location, method of detection, behavior, flight paths, and all other relevant data should be clearly shown on the map(s), or otherwise made available in the report; and
- Shapefiles depicting the date, location and behavior of each individual of all state and federally listed species observed on site, and shapefiles of all transects and point locations to be delivered electronically).

REFERENCES

Morrison, M. L., W. L. Kendall., M. D. Strickland, and W. M. Block. 2001. Wildlife Study Design. Springer-Verlag, New York. 210 pp.

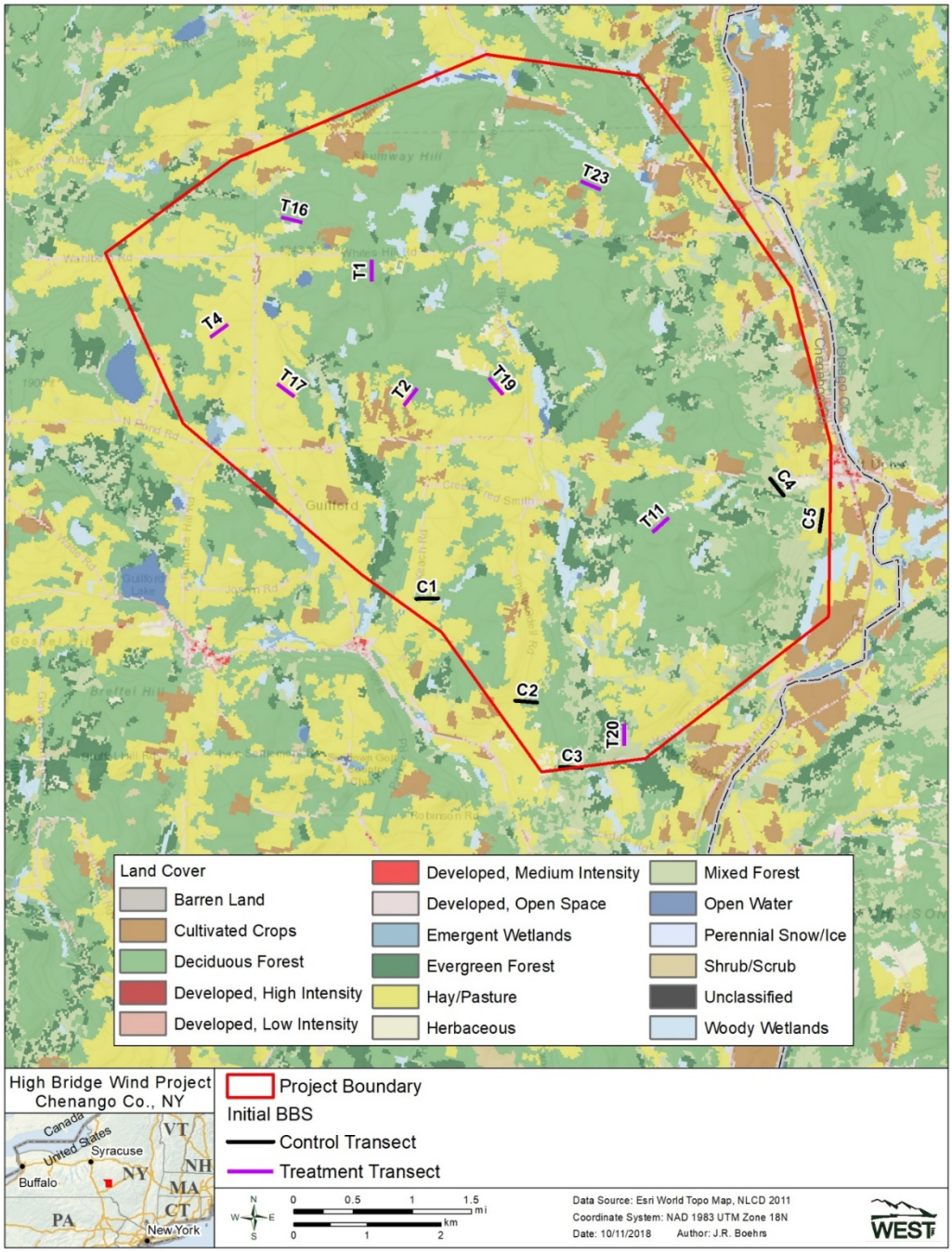

Figure 1. High Bridge Wind Project and location of breeding bird survey transect locations.

Eagle Use Survey Protocol
High Bridge Wind Project
Chenango County, New York

Prepared for:

Calpine Wind Holdings, LLC

Prepared by:

Jason Ritzert, Jonathan Stein, Kristen Nasman

Western EcoSystems Technology, Inc.
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February 2018

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INTRODUCTION

Calpine Wind Holdings, LLC (Calpine) is considering the development of a wind project in Chenango County, New York known as the High Bridge Wind Project (the Project or Project area). The final number, size, and location of turbines and associated infrastructure have not been determined. Calpine has asked Western EcoSystems Technology, Inc. (WEST) to develop a protocol to conduct eagle use surveys (EUS) within the Project area. The US Fish and Wildlife Service (USFWS) recommends that wind energy developers follow a tiered approach when assessing risk of development to wildlife (USFWS 2012). The following protocol was developed accordance with the data standards defined by the USFWS in the final eagle rule (USFWS 2016) as appropriate for specifically evaluating risk posed to bald (*Haliaeetus leucocephalus*) and golden (*Aquila chrysaetos*) eagles, and Tier 3 of the USFWS Land-Based Wind Energy Guidelines (WEG: USFWS 2012).

The principle objectives of the EUS for the Project are to 1) estimate the overall rate of use of the Project by bald eagles, golden eagles, other diurnal raptors (defined here as kites, accipiters, buteos, harriers, and falcons), and vultures; and 2) estimate potential impacts to eagles, other diurnal raptors, and vultures that could result from the construction and operation of the proposed Project.

During the first year of EUS, all raptors and vultures will be recorded. After the first year of surveys, WEST will coordinate with the NYSDEC and USFWS to determine if additional data collection on all raptors and vultures is warranted or if only eagle data will need to be collected during the second year of surveys.

METHODS

Eagle Use Surveys

The ECPG recommends that enough survey plots be placed to cover at least 30% of a proposed Project area. The current Project area is 61 square kilometers (km^2; 23.9 square miles [mi^2]), and each survey plot covers approximately 2 km^2 (0.8 mi^2). To meet this recommendation, 10 survey plots were established within the Project area in a manner so that the 800-meter (m; 2,625-feet [ft]) buffers of each plot do not, or only minimally, overlap before March 1, 2018. However, based upon conversations with the USFWS (Tom Wittig, USFWS), additional survey points were recommended to increase the percent coverage to help account for turbine array shifts that may happen during the two years of EUS. Therefore, four additional survey points will be added June 1, 2018 and will be included for the remainder of the EUS. The additional points will increase the percent coverage of the Project from approximately 32% to approximately 45%. Survey plot locations will initially be determined with a random start using a Geographic Information System (GIS; ArcGIS 10.3) and placed systematically in the Project area. Survey plots will be micro-sited in the field to maximize safety, visibility, and access to leased parcels.

Eagle use surveys will be conducted for two years from March 1, 2018 to February 28, 2020 per the ECPG. Based upon concerns raised about golden eagle occurrence in this region of New York, we propose the following survey schedule, outlined below:

Table 1. Season survey dates, frequency, and survey hours for eagle use surveys at the High Bridge Wind Project.

Season	Date	Survey Frequency	No. Survey Plots	No. of Surveys	Total Surveys (hrs)
Spring Concentration Survey	March 1 - March 31, 2018	Weekly	10	4	40
Spring	April 1 - May 31, 2018	Twice Monthly	10	4	40
Summer	June 1 - August 31, 2018	Twice Monthly	14	6	84
Fall	September 1 - October 14, 2018	Twice Monthly	14	3	42
Fall Concentration Survey	October 15 - December 8, 2018	Weekly	14	8	112
Winter	December 9, 2018 - February 28, 2019	Twice Monthly	14	5	70
Spring Concentration Survey	March 1 - March 28, 2019	Weekly	14	4	56
Spring	April 1 - May 31, 2019	Twice Monthly	14	4	56
Summer	June 1 - August 31, 2019	Twice Monthly	14	6	84
Fall	September 1 - October 14, 2019	Twice Monthly	14	3	42
Fall Concentration Survey	October 15 - December 8, 2019	Weekly	14	8	112
Winter	December 9, 2019 - February 28, 2020	Twice Monthly	14	5	70
Totals				**60**	**808**

The initial 10 survey plots were surveyed from March 1 to May 31, 2018. The number of survey plots will increase to 14 on June 1, 2018 and will continue to be surveyed through February 28, 2020. Each plot will be surveyed for 60 minutes during each surveys for a total of 808 hours of on-site EUS over the two years. Plot surveys will be distributed across daylight hours (e.g., morning sunrise to 1100; 1101 to 1600; 1601 to sunrise).

WEST is proposing to have increased spring and fall survey efforts due to concern raised about golden eagle migration in the area. During the spring (March 1 – March 31) and fall (October 15 – December 8) migration periods, the number of visits to all 14 survey plots will be increased from one hour twice monthly to one hour weekly. The three best raptor migration days each week will be selected at the time of monitoring based on WEST's best judgment of favorable raptor migration days. To determine the three best raptor migration days, criteria such as northerly winds in the fall and southerly winds in the spring, no or light precipitation, and the day

before or days immediately following cold fronts in the fall and warm fronts in the spring will be utilized. During the spring, days with northwesterly winds will be targeted to ensure the best days for golden eagle migration are surveyed as the northwesterly winds are a good predictor of golden eagle movements during the spring. All times of day from sunrise to sunset will be targeted to ensure that favorable raptor migration conditions are sampled during each survey day (i.e, if favorable raptor migration conditions are forecasted for the afternoon but not the morning, afternoon surveys will be completed). No surveys will be conducted on days with heavy precipitation or when visibility is less than 800 m (2,625 ft) from the center of the survey plot.

For the first year of surveys, all eagles, raptors and vultures observed within the 800 m (2,625 ft]) survey plot during each survey will be recorded. Eagle observations outside of the 800 m (2,525 ft) radius and above 200 m (656 ft) will be recorded by the field biologist, but these data will be analyzed separately from those collected within the survey plot. All eagle, raptor and vulture observations will be monitored until they leave the observer's field of view. Estimated distance to each observed raptor or vulture will be recorded to the nearest 5 m. Landmarks will be located to aid in estimating distances to each observation. The date, start, and end time of observation period, plot number, species or best possible identification, number of eagles, raptors or vultures in a group, sex and age class (if possible), distance from plot center when first observed (m), closest distance (m), height above ground (m), behavior, and habitat will be recorded.

Flight or movement paths for eagles, raptors and vultures will be mapped and given corresponding unique observation numbers. The map will indicate whether the observation was within or outside the survey plot based on reference points at known distances from the plot center. Recent aerial photographs will be used to aid in recording locations of observations as accurately as possible.

Bird behavior and habitat will be recorded for each observation. For eagle observations, additional behavior and habitat data will be recorded during each one-minute interval the bird is within view, per the ECPG (USFWS 2016). Behavior categories will include:

- Soaring flight,
- Flapping-gliding,
- Hunting,
- Kiting-hovering,
- Stooping/diving at prey,
- Stooping or diving in an antagonistic context with other bird species,
- Perched,
- Mobbed,
- Undulating/territorial flight,
- Auditory, and
- Other (noted in comments).

The initial flight patterns and habitat types (at first observation) will be uniquely identified on the data sheet and subsequent patterns and habitats will also be recorded. The flight direction of observed eagles, raptors and vultures will also be recorded on the data sheet map. Approximate flight height at first observation will be recorded to the nearest 5 m; in addition to the approximate lowest and highest flight heights observed. Any comments or unusual observations will be noted in the comments section. Weather information recorded for each survey point will include temperature, wind speed, wind direction, precipitation, and cloud cover.

Eagles and state or federally listed species observed in the Project outside of scheduled surveys will be recorded on in-transit or incidental wildlife observation data sheets. The data recorded are similar to those described above, including observation number, date, time, species, number of individuals, distance from observer in meters, sex/age class, and habitat. Observations will be recorded in additional detail, mapped on a U.S. Geological Survey quadrangle maps or aerial photographs, and summarized.

Statistical Analysis of Baseline Data

Data Compilation and Storage

A database will be established to store, retrieve, and organize field observations. Data from field forms will be keyed into electronic data files using a pre-defined format to make subsequent data analysis straightforward. All field data forms, field notebooks, and electronic data files will be retained for ready reference.

Quality Assurance/Quality Control (QA/QC)

QA/QC measures will be implemented at all stages of the study, including field data collection, data entry, data analysis, and report preparation. At the end of each survey day, the observer will be responsible for inspecting his or her data forms for completeness, accuracy, and legibility. Periodically, the study team leader will review data forms to insure completeness and legibility; any problems detected will be corrected. Any changes made to the data forms will be initialed and dated by the person making the change.

Data will be checked thoroughly for data entry errors. Any errors will be corrected by referencing the raw data forms and/or consulting with the observer who collected the data. Any irregular codes detected, or any data suspected as questionable, will be discussed with the observer and study team leader. Any changes made to the raw data will be documented for future reference.

Statistical Analysis and Products

Statistics to be generated for the project will include the following that will be presented in a report format:

- Maps of survey locations;
- Eagle flight minutes;
- Eagle flight heights and direction;

- Hours of observation;
- Species list for the EUS and incidental observations;
- Maps of eagle and raptor flight paths;
- Distributions of eagle use within the project area; and
- Calculate the collision risk to golden and bald eagles using the USFWS collision risk model or other peer-reviewed collision risk model.

REFERENCES

New York State Department of Environmental Conservation (NYSDEC). 2016. Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects. Prepared by NYSDEC Division of Fish and Wildlife. June 2016. Available online at: http://www.dec.ny.gov/docs/wildlife_pdf/winguide16.pdf

US Fish and Wildlife Service (USFWS). 2012. Final Land-Based Wind Energy Guidelines. March 23, 2012. 82 pp. Available online at: http://www.fws.gov/cno/pdf/Energy/2012_Wind_Energy_Guidelines_final.pdf

US Fish and Wildlife Service (USFWS). 2016. Eagle Permits; Revisions to Regulations for Eagle Incidental Take and Take of Eagle Nests; Proposed Rule. 50 CFR 13 and 22. United States Fish and Wildlife Service, Department of the Interior. 81 Federal Register (FR) 88: 27933 -27976. May 6, 2016. Available online at: https://www.gpo.gov/fdsys/pkg/FR-2016-05-06/pdf/2016-10542.pdf

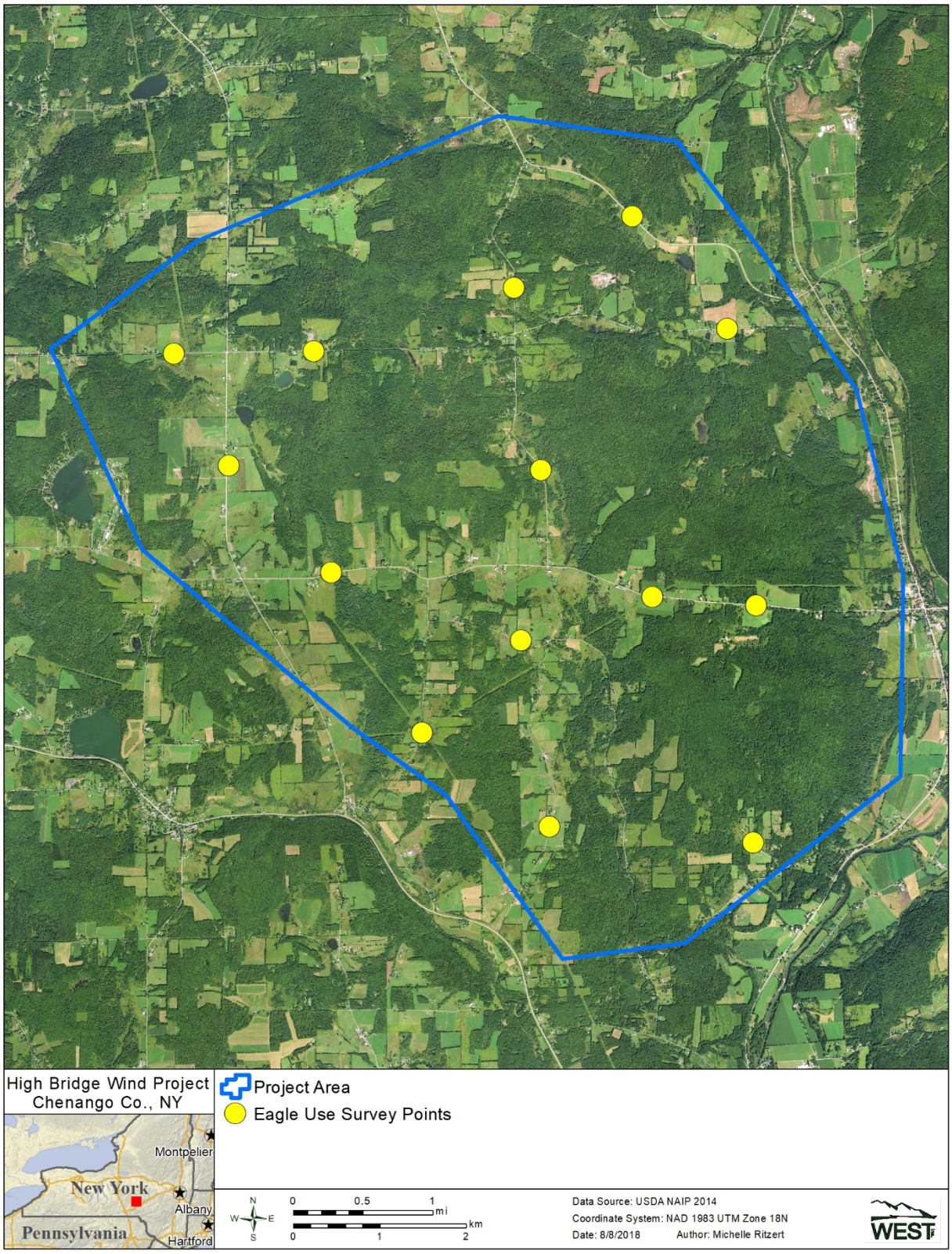

Figure 1. High Bridge Wind Project and location of eagle use survey plots.

Raptor Migration Survey Protocol for the High Bridge Wind Project Chenango County, New York

Prepared for:

Calpine Wind Holdings, LLC

Prepared by:

Jason Ritzert, Jonathan Stein, and Kristen Nasman

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February 2018

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INTRODUCTION

Calpine Wind Holdings, LLC (Calpine) is considering the development of a wind project in Chenango County, New York known as the High Bridge Wind Project (the Project or Project area). The final number, size, and location of turbines and associated infrastructure have not been determined. Calpine has asked Western EcoSystems Technology, Inc. (WEST) to develop a protocol to conduct raptor migration surveys (RMS) at the Project following the New York State Department of Environmental Conservation (NYSDEC) Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects (NYSDEC 2016).

The principle objectives of the RMS are 1) estimate the overall rate of use of the Project area during the fall and spring migration periods by diurnal raptors (defined here as kites, accipiters, buteos, harriers, eagles, and falcons) and vultures; 2) estimate potential impacts to migrating diurnal raptors and vultures from the construction and operation of the proposed Project; and 3) compare overall use rates to New York Hawk Migration Association of North America (HMANA) locations.

METHODS

Raptor Migration Surveys

Raptor migration surveys will consist of counts of raptors at fixed-point locations within the Project area. Surveys will be conducted once per week during the spring (March 1 to May 31, 2018) and fall (August 15 to December 15, 2018) migration periods (NYSDEC 2016). To maximize coverage of the Project area, two survey locations will be placed within the proposed Project area (Figure 1). Each survey location will be surveyed once per week for a total of two survey days per week during the spring and fall migration periods. Surveys will not be conducted on days with heavy rain, snow, fog or excessive cloud cover that would limit visibility. Surveys will begin at 0800 and continue until two hours prior to sunset each survey day. The two best raptor migration days each week will be selected at the time of monitoring based on WEST's best judgment of favorable raptor migration days using criteria such as northerly winds in the fall and southerly winds in the spring, no or light precipitation, and days before or immediately following cold fronts in the fall and warm fronts in the spring. During the spring, days with northwesterly winds will be targeted to ensure the best days for golden eagle migration are surveyed as the northwesterly winds are a good predictor of golden eagle movements during the spring.

All raptors and vultures observed during each survey will be recorded and the estimated distance to each bird observed will be recorded to the nearest meter (three ft). The date, start and end time of the survey, and weather information (i.e., temperature [°F], ceiling height, wind speed, wind direction, precipitation, cloud cover (%), and the timing of any cold or warm fronts passing through) will be recorded for hourly during each survey.

The following data will also be recorded for each observation:

- Species (or best possible identification);
- Time species was observed;
- Number of individuals;
- Sex and age class (if possible);
- Distance from plot center when first observed;
- Closest distance observed;
- Altitude above ground;

The behavior of each bird observed and the habitat in which or over which the bird occurred will be recorded. Behavior categories recognized include perched, soaring, flapping, foraging, gliding, hovering, auditory, and other (noted in comments). Vegetation types within which or over which observations are made will also be recorded. Flight paths and vegetation types (at first observation) will be uniquely identified on the data sheet. The flight direction of observed raptors will also be recorded on the data sheet map. Approximate flight height above ground level (AGL) at first observation will be recorded to the nearest 5 meters (16 feet), in addition to the lowest and highest flight heights observed. Any comments or unusual observations will be noted in the comments section. Locations of raptors will be recorded on the field maps, by observation number. The field maps will be prepared as portions of recent aerial photographs, which include the survey plot.

If large flocks (greater than 50 individuals) of other bird types (i.e., waterfowl, shorebirds, corvids, and passerines) and state or federally listed species are observed during the RMS, data will be recorded in an identical manner as each raptor observation per the NYSDEC guidelines (NYSDEC 2016). State or federally listed species observed outside of scheduled surveys will be recorded on incidental wildlife observation data sheets. Incidental wildlife data recorded are similar to those described above, including observation number, date, time, species, number of individuals, distance from observer, sex/age class, and habitat.

Statistical Analysis of Baseline Data

Data Compilation and Storage

A database will be established to store, retrieve, and organize field observations. Data from field forms will be keyed into electronic data files using a pre-defined format to make subsequent data analysis straightforward. All field data forms, field notebooks, and electronic data files will be retained for ready reference.

Quality Assurance/Quality Control (QA/QC)

QA/QC measures will be implemented at all stages of the study, including field data collection, data entry, data analysis, and report preparation. At the end of each survey day, the observer will be responsible for inspecting his or her data forms for completeness, accuracy, and

legibility. Periodically, the study team leader will review data forms to ensure completeness and legibility; any problems detected will be corrected. Any changes made to the data forms will be initialed and dated by the person making the change.

Data will be checked thoroughly for data entry errors. Any errors will be corrected by referencing the raw data forms and/or consulting with the observer who collected the data. Any irregular codes detected, or any data suspected as questionable, will be discussed with the observer and study team leader. Any changes made to the raw data will be documented for future reference.

Statistical Analysis and Products

Statistics and summaries to be generated for the project will include the following:

- Maps of survey locations.
- Species list by study period and survey type;
- Bird species and proportion of flights passing within the air space potentially occupied by the rotor swept area of wind turbines (table);
- Relative use by bird species, bird type, and plot (tables, figures, and maps);
- Locations of federal and state listed species and habitats, other species of concern, and raptor nests (tables and maps);
- Length of time any federal or state listed species is observed;
- Comparisons of raptor and bat use between the Project and other existing or proposed wind-energy facilities and local HawkWatch locations; and
- Maps of flight paths.

REFERENCES

New York State Department of Environmental Conservation (NYSDEC). 2016. Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects. April 2016. Available online at: http://www.dec.ny.gov/docs/wildlife_pdf/winguide16.pdf.

US Fish and Wildlife Service (USFWS). 2012. Final Land-Based Wind Energy Guidelines. March 23, 2012. 82 pp. Available online at: http://www.fws.gov/cno/pdf/Energy/2012_Wind_Energy_Guidelines_final.pdf

US Fish and Wildlife Service (USFWS). 2016. Eagle Permits; Revisions to Regulations for Eagle Incidental Take and Take of Eagle Nests; Proposed Rule. 50 CFR 13 and 22. United States Fish and Wildlife Service, Department of the Interior. 81 Federal Register (FR) 88: 27933 -27976. May 6, 2016. Available online at: https://www.gpo.gov/fdsys/pkg/FR-2016-05-06/pdf/2016-10542.pdf

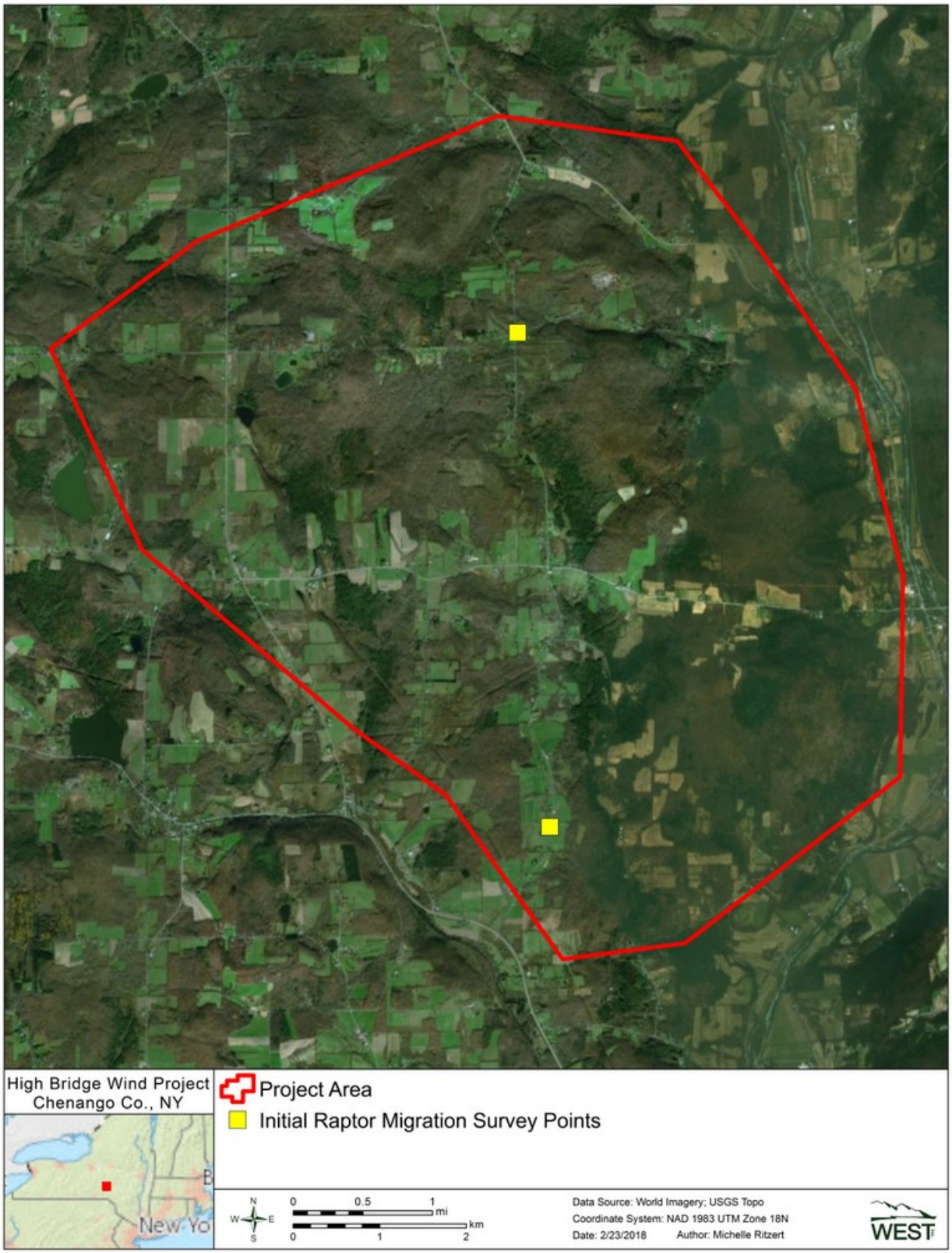

Figure 1. High Bridge Wind Project and location of raptor migration survey locations.

Appendix I

Response to Comments Received
on the Preliminary Scoping Statement

High Bridge Wind Project
Revised Scoping Statement (RSS)
Appendix I: Response to Comments Received on the PSS

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NEW YORK STATE DEPARTMENT OF PUBLIC SERVICE

General Comments

1. In addition to the specific comments on many topics below, DPS Staff advises that the Application must also contain all the informational requirements included in 16 NYCRR §1001.

Response: The Application will contain the information required by 16 NYCRR 1001.

2. The case number indicated in the footer of the Preliminary Scoping Statement (PSS) lists "Case 18-F-026." Please note that the correct case number for the Project is 18-F-0262

Response: The Revised Scoping Statement (RSS) has been updated to reflect the correct case number.

3. Applicant should provide a matrix during the scoping and stipulation process to cross-reference and indicate where issues, comments, and information required under 16 NYCRR §1001 are addressed in multiple exhibits.

Response: The Applicant will confer with the parties during the Stipulations process to determine how best to provide the information requested. Additionally, the Application will include an index identifying the location of exhibits, appendices, and relevant cross references.

4. GIS shapefiles used in development of the Application should be provided to support information in the Application. GIS shapefiles of all Project and resource locational information and analyses should be provided directly to DPS Staff on CD-ROM along with paper copies of the Application.

Response: The information requested will be provided with the Application

5. DPS Staff requests that Applicant provide immediate access to GIS shapefiles for the Project Facility Area, as well as any preliminary facility locations, or participating property mapping, to advance our understanding of potential resource considerations and refinement of Project scoping discussions.

Response: The Applicant will provide DPS with GIS shapefiles of the preliminary Facility Site presented in the PSS, as well as preliminary Facility turbine locations.

Cover Letter and Affidavits

6. The Affidavit of Service provided in the Applicant's February 4, 2019 letter indicates that the PSS was served on the statutory parties pursuant to 16 NYCRR § 1000.5(c). However, the Applicant did not provide paper copies of the filing to the NYS Attorney General and the required number of paper copies were not served on the Secretary to the Siting Board, the NYS Department of Environmental Conservation (DEC), and the DEC regional office. In addition, the Affidavit of Service does not indicate that an electronic copy of the PSS was provided the public information officer at DPS.

Response: The Applicant served the PSS in the manner required or, in many cases requested by the agencies that did not wish to receive the number of paper copies specified in the regulations. For example, a representative of the Attorney General's Office expressly directed the Applicant's counsel to serve only electronic copies of relevant Article 10 documents on their office, and not to send any paper copies. Similarly, DEC has agreed to a reduced number of

paper copies of Article 10 filings at both Central Office and the Regional Offices, due to limited space, the large size of many documents, and the resource waste associated therewith. Since the purpose of paper service requirements is to ensure that parties have access to the appropriate format and number of copies of important documents, it is reasonable and ultimately good practice to permit parties to specify what manner and number of copies they prefer to receive, and to refrain from serving paper copies where parties have expressly requested not to receive them, particularly for agencies with strong "paperless" policies. Therefore, the Applicant has complied, and will continue to comply, with agency requests for electronic service, and/or service of a reduced number of paper copies, of important documents and filings.

7. The Chair of the Public Service Commission, John Rhodes, should be added to the Stakeholders List. Also include the following contacts for NYS DPS: Andrea Cerbin, Office of General Counsel and Andrew Davis, Office of Electric, Gas and Water.

Response: John Rhodes, Andrea Cerbin, and Andrew Davis have been added to the Stakeholder List.

Exhibit 2 – Overview and Public Involvement Summary

8. The Applicant indicated that it has not identified host and adjacent landowners at this stage of the Project. An updated Stakeholder List identifying these landowners should be included with the Application. In addition, Staff reiterates the recommendation regarding the PIP Plan that the definition of adjacent landowner should be expanded to include "landowners with property within 2,500 feet of a wind turbine, solar collector array, or substation, or within 500 feet of other Facility Projects components (e.g., collection lines, met tower, O&M Facility, etc.), and any additional landowners whose homes are within 5,000 feet of a turbine.

Response: The Applicant will provide an updated Stakeholder List, including a list of host and adjacent landowners, in the Application. The Applicant will modify the definition of "adjacent landowner" to include all landowners owning parcels abutting the Facility Site, within 0.5 miles of a wind turbine or substation, or within 500 feet of other Facility components (e.g., collection lines, met towers, O&M facility, laydown yards, etc.).

9. The Applicant uses the term "Facility Area" in this exhibit rather than "Facility Site." It is unclear whether these terms are interchangeable or whether the Facility Area encompasses a larger footprint than the Facility Site and thereby includes a broader group of landowners.

Response: The "Facility Area" refers to the broad project area presented in the Public Involvement Program (PIP) Plan—essentially, a line around the area within which all project components would be located, but also including many non-participating parcels near the Facility Site. The preliminary Facility Site presented in the PSS is smaller than the Facility Area and better represents the area within which parcels containing Facility components will be located. The Facility Area encompasses a larger footprint than the Facility Site and includes a broader group of landowners.

10. Page 16 describes an open house held on August 22, 2018 and indicates that notices were mailed to residents and businesses within the Facility Area. Provide proof of service. In addition, the PIP Plan notes that the Applicant would publish notice of the open houses in the local paper. Provide Proof of Publication. Lastly, the description of the open houses notes that 50-60 people attended. The Applicant should clarify whether this number refers to the August or November open house or both.

Response: The Applicant will provide the proof of service and proof of publication requested. A similar number of individuals were present at both the November and August open houses: approximately 50-60 individuals.

11. In Section 2.2.1, the Applicant describes the consultation Tracking Log and states that the log is in Appendix B. The log should be updated to include the August open house, as well as activities taken to advertise the meetings (e.g. mailing, newspaper). The log should include a summary of the concerns and questions raised by the public and any actions that need to be taken by the Applicant following the meetings and consultations.

Response: The Tracking Log will be updated to include the August open house, as well as activities taken to advertise the meeting, and will be updated to provide a summary of feedback received at this and all other open houses held by the Applicant to date.

12. On page 19, the Applicant notes that copies of all major documents will be posted to the Project website. A review of the site did not find major project documents or a link to the Department's Document and Matter Management system. These documents, as well as copies of outreach materials (factsheets, etc.) developed for the open houses and distribution to the stakeholders should be posted to the website. Additionally, the Project website lacked important components such as maps, project milestones and timeline, the outreach tracking report and a means to join the stakeholder list.

Response: The High Bridge Wind website currently hosts many of the important documents related to this Project, including the Public Involvement Program Plan (PIP), PSS, and all notices related to public events, comment deadlines and application deadlines. The submitted PSS also contains many of the documents requested in the comments, e.g., a Project map. The Applicant recognized the web site could make this additional information about the Project more readily accessible and has updated its website accordingly. There is also a link to the DMM website via the High Bridge website. Originally, this link was labeled as "New York State Article 10 Process" (accessed via the homepage), and the Applicant changed the label for this link to improve navigability. DMM already provides a means for interested parties to sign up to receive automated email alerts when filings are made, called the "Service List" or to sign up for the Party List. The Applicant refers those that visit the High Bridge Wind website to DMM for enrolling on those lists. Those who seek to join the stakeholder list are directed to email High Bridge Wind with a request.

Exhibit 3 – Facility Location

13. For Section 2.3.2(a) topographic maps item (5) Area of Potential Effect for Indirect Effects (PSS pp. 21 – 23),

    a. DPS recommends that the 5-mile study area be expanded sufficiently to address the Cities of Norwich and Sidney in assessing visual effects on historic resources.

    Response: The Applicant will assess visual impacts on historic resources for those areas within the City of Norwich and the Village of Sidney that are within the potential viewshed (based on topography) of the Facility. See the revised text in Section 2.3.2(5) and Section 2.20.1 of the RSS.

    b. DPS recommends that the Shadow Flicker Study Area distance be stated in number of feet as well as the "10-rotor-diameter radius" which may be confusing for some readers.

    Response: Comment noted. The definition of the Shadow Flicker Study Area included in the Application will include the size of the study area, in feet. However, since a specific turbine model has not yet been chosen, it is too early to specify the 10-rotor-diameter distance in feet at this time.

    c. DPS requests clarification of specific criteria to be used for determining presence of wetlands within the "500-foot Wetland Study Area" as distinguished from the "100-foot Wetland Study Area," as described at PSS pages 22 and 23.

Response: Comment noted. The definition of the Wetland Study Area has been updated to improve clarity. See the revised text in Section 2.3.2(a)(5), Section 2.22.2(i)(2), and Section 2.22.2(j) of the RSS.

Exhibit 4 – Land Use

14. Discussion in Land Use section 2.4.1 indicates Wild, Scenic and Recreational (WSR) River Corridors in the National WSR System will be considered in recreational resource mapping. DPS advises that National Rivers Inventory (NRI) maintained by the National Park Service lists candidate waterways for WSR designation. The NRI lists the Unadilla River, including the river reach passing in close proximity of the proposed Facility Site, as having "Outstandingly Remarkable Value" as a recreational river; and it is "one of the longest remaining undeveloped, free-flowing rivers in the section." DPS advises that the Unadilla River should be evaluated in recreational and visual resource analyses for the proposed High Bridge Wind project.

Response: The Application has identified the Unadilla River as a recreational resource as part of on-going visual outreach efforts and will evaluate this resource in the Application.

15. Discussion in section 2.4.2(j) (p. 28). DPS recommends that the assessment of compatibility of any above-ground collection lines with existing and proposed land uses should include the entire study area. Above ground interconnections and related facilities have the potential to impact land uses greater than 300-feet.

Response: The regulations at 16 NYCRR 1001.4(k) expressly limit the required analysis to 300 feet from the centerline of those facilities. For purposes of the Facility's visual impact analysis, the potential visibility of above-ground collection lines will be considered in Exhibit 24 at a range greater than the 300 feet required for this section. Furthermore, to the extent that any EMF issues exist in the vicinity of these collection lines, they would be discussed at Exhibit 35. Aside from visual impacts, and given the low voltage generally used for electrical collection in this context, it is unclear what other potential impacts to land use the commenter is asserting which would justify expanding the requirements of the regulations.

16. Discussion in section 2.4.2(m) (p. 29) - Aerial imagery should be included for the entire study area. Facilities have the potential to impact land uses within the entire study area.

Response: Comment noted. The Application will provide the requested information. See also the revised text in Section 2.4.2(m) of the RSS.

17. Discussion in section 2.4.2(p) (p. 30) - For community character studies proposed, DPS requests the Applicant include photographs of landscape features and defining elements of Project and Study Area character.

Response: Comment noted. The Application will provide the requested information in a stand-alone photolog appended to the Application. See also the revised text in Section 2.4.2(p) of the RSS.

Exhibit 6 – Wind Power Facilities

18. Section 2.6.1 – Discussion

On page 41, it is noted that "[t]he Project Sponsor has not made a final decision on the turbine manufacturer or model." However, based on preliminary evaluations, 3.8 MW to over 5 MW represents the range of turbine size types considered

for this Facility. To properly assess factors being considered regarding setbacks, as part of the response to PSS comments, it is advised that the Applicant provide a table including wind turbine models under consideration. The table should include the following: turbine model; rated power; hub height; rotor diameter; and total height. At minimum, the Applicant's response to PSS comments should indicate the maximum blade tip height under consideration for the proposed Facility.

Response: A variety of turbine models are being considered for High Bridge per the input of Original Equipment Manufacturers (OEMs). However, because these models are subject to site suitability and the continuing evolution of technology, it is possible that turbine models presented in the Application are different from what is currently being considered. Currently, the maximum blade tip height of models being considered is 673 ft. The Applicant does not anticipate the maximum blade tip height will increase.

19. Section 2.6.2(a) – Statement of Setback Requirements/Recommendations

If applicable, DPS Staff advises that details of local ordinances, including definitions of terminology, should be important considerations in Facility design and development of the application. Definitions of "structures" and "buildings" and other terms should be provided in the Application.

Response: The Town of Guilford does not have local zoning or other applicable ordinances; therefore, the requested information will not be available or relevant in this case.

20. Section 2.6.2(b) – Explanation of the Degree to which the Facility Layout Accommodates Turbine Setbacks

DPS Staff advises that the Public Service Commission has stipulated to a standard setback distance of 1.5 times maximum blade tip height from major transmission facilities, and the high-voltage side of the proposed Facility Collection Substation. See Case 07-E-0213, Sheldon Energy LLC, Order Granting Certificate of Public Convenience and Necessity and Providing for Lightened Regulation (issued January 17, 2008), fn. 5, page 12 ("In the future, we may, as conditions warrant require a minimum setback distance of 1.5 times maximum turbine blade tip height from the edge of the right-of-way of any electric transmission line designed to operate at 115 kV or more.").

Response: Comment noted.

21. DPS recommends that the Application include explanations of any instances that the proposed layout does not conform to municipal setback requirements (if applicable) and/or the Applicant's and Manufacturers' setbacks. A list of such turbine locations not conforming to local or proposed Applicant and Manufacturer setbacks should be included noting the discrepancy between required and proposed setback distances.

Response: The Application will provide the requested information. See also the revised text in Section 2.6.2(b) of the RSS. Please note that there are no municipal setback recommendations or requirements at this time.

22. Section 2.6(c) – Third-party Review and Certification of Wind Turbines

In addition to what is listed in this section, DPS Staff recommends that the Application include a table that shows wind turbine classes with corresponding turbulence levels (e.g., International Electrotechnical Commission (IEC) class IB, etc.) that are suitable for use in the Project area. The table should include the following wind regime factors: weather extremes, average wind speed, wind gusts, and turbulence intensity.

Response: Comment noted. As detailed in Section 2.6.2(d) of the PSS, the Application will include a table that provides the information requested.

Exhibit 11 - Preliminary Design Drawings

23. Section 2.11.2 (e) Lighting Plan proposes to address lighting as part of Application Exhibit 18 – Safety and Security. DPS advises that preliminary Lighting Plans as required by both 16 NYCRR 1001.11(e) and 1001.18(b)(3) require preliminary site plans and descriptions showing lighting arrangements and initial specifications to be provided in the Application, not as a compliance filing as suggested by the PSS.

Response: A Preliminary Lighting Plan for the O&M building and the collection and POI substations will be provided in the Application, as required by 16 NYCRR 101.11(e) and 1001.18(b)(3).

Exhibit 12 – Construction

24. Section 2.12.2(d) - Procedures for Addressing Public Complaints and Disputes

On Page 66 of the PSS, the Applicant states that the Complaint Resolution Plan will include the "following construction-related components." This should be expanded to "construction and operations-related components."

Response: Comment noted. See the revised text in Section 2.12.2(d) of the RSS.

25. DPS Staff recommends that this section include information when the Applicant will communicate with Stakeholders about construction activities, schedule and applicable safety and security measures.

Response: This section of the Application will include the requested information, in the Exhibit text itself and/or in the Complaint Resolution Plan.

Exhibit 14 – Cost of Facilities

26. Section 2.14.2(c) – Work Papers

Per 16 NYCRR §1001.14(c), Staff requests that the Applicant include in the Application all work papers from which the cost estimates, required by 16 NYCRR §1001.14(a), were made.

Response: The Applicant will provide DPS with a table detailing capital cost of facilities under confidential cover, as this is confidential commercial information. See also the revised text in Section 2.14.2(c) of the RSS.

Exhibit 18 – Safety and Security

27. In Section 2.18.1 - Security Lighting – as noted above in comment regarding Exhibit 11, DPS advises that preliminary Lighting Plans as required by both 16 NYCRR 1001.11(e) and 1001.18(b)(3) require preliminary site plans and descriptions showing lighting arrangements and initial specifications to be provided in the Application, not as a compliance filing as suggested by the PSS.

Response: See response to Comment 23.

28. The components of the emergency action plan (EAP) should include specific protocols for notifying different members of the public (e.g. emergency responders, host and adjacent landowners, utilities, environmental agencies, etc.) in the event of an emergency.

Response: Comment noted. The EAP will include protocols for notifying different members of the public (e.g., emergency responders, host and adjacent landowners, utilities, environmental agencies, etc.) in the event of an emergency.

29. On page 85, the Applicant states it will provide a copy of the EAP to the Chenango County Fire and Emergency Services and local responders. DPS Staff recommends the Applicant seek comments on the draft EAP, incorporate suggested changes as applicable and provide a final copy to these entities. The Application should identify the local emergency responders that will be consulted during the development of the EAP and will receive copies of the final plan.

Response: The Applicant will provide a Draft EAP to the Chenango County Fire and Emergency Services and local emergency responders for comment. The Application will identify the local emergency responders that the Applicant consulted with during the development of the EAP, identify any changes made as result of these consultations (if applicable), and list the local emergency responders that will receive final copies of the EAP.

Exhibit 19 – Noise and Vibration

30. Section 2.19.2(d)(12) – Estimated Sound Levels to be Produced by Operation of the Facility

DPS understands that the new WHO-2018 guidelines have been proposed for evaluation of potential noise impacts as part of Exhibit 15 Health and Safety. Therefore, DPS advises the following be included in Exhibit 18:

a. Section 2.19.2 (d) (12) should be expanded to include procedures for calculation of the L_{day} and Leve noise descriptors which are necessary for calculation of the L_{den} noise descriptor at sensitive soundreceptors.

Response: The WHO 2018 Guideline document will be reviewed as part of the application, and its relevancy will be given the appropriate weight. The Applicant is not committing to these analyses at this time.

b. DPS Staff recommends an analysis similar to the one proposed for determination of the L_{10} and L_{50} statistical descriptors specified in sections (d) (11) and (12) of the PSS. The method consists on determining wind speed at hub-height and the associated sound power levels from the turbine(s) under consideration in an hourly basis. However, section 2.19.2 (d) 12 proposes "using the percent time matched to sound power level at a wind speed" on an energy basis. DPS Staff recommends consulting with Staff prior to the Application being filed to identify proper methodologies for inclusion in the Application.

Response: See response to Comment 29(a) above.

c. DPS Staff also recommends using the time frames of evaluation for noise commonly used in U.S. rather than the time designations used in Europe (9-h for the nighttime rather than 8-h, and 11-h for the daytime rather than 12-h).

Response: *This is consistent with the regulations for nighttime and will be done. However, the definition of daytime in the regulations is 7 am – 10 pm (15 hours), and thus 15 hours will be used for the daytime evaluation.*

31. Section 2.19.2(d)(14) – Estimated Sound Levels to be Produced by Operation of the Facility

DPS Staff recommends the following:

a. This section should consider other assumptions for determination of the highest 1-hour, 8-hour, and 16-hour sound levels such as height of evaluation for receptors, ground factor (G), uncertainties on sound power level determination, and an analysis between accuracy of predictions for documented cases.

Response: *The choice of each of these assumptions/model inputs will be justified in the Application.*

b. The time frames of evaluation should be adjusted as recommended by DPS Staff in comment [29*(c)*] above.

Response: *See response to Comment 29(c) above.*

32. This section indicates that the project will not perform 365 8-hour-nighttime and 16-hour-daytime model runs using 1-hour L_{eq} sound levels at all sensitive receptors, however it does not specify how the L_{day}, L_{eve}, and L_{den} will be determined. DPS Staff will like to discuss these procedures as specified in DPS Staff comment [29*(b)*] above. In addition, section 2.19.2 (d)(7) of the PSS should be expanded to provide sound contours for the L_{den} noise descriptor.

Response: *See response to comment 29(a) above. No commitment is made to perform an Lden analysis.*

33. Section 2.19.2(g) – Table 3 Summary of High Bridge Wind Design Goals and Sound Standards

DPS Staff considers the following:

a. Table 3 should be expanded to include the new WHO-2018 recommendation consisting of noise levels lower than 45 dBA L_{den}.

Response: *The Applicant is not agreeing to this as a design goal. The WHO 2018 Guidelines will be discussed as part of the Application literature reviewed.*

b. After the WHO-2018 withdrawal of the 45 dBA L-8-h (recommended by WHO in 1999) and the retaining of the 30-dBA-8-h indoor recommendation, goal #1 in table 3 should be replaced with the indoor recommendation.

Response: *Setting an indoor design goal is not measurable or enforceable. That said, setting an exterior design goal of 45 dBA will still achieve an interior sound level of approximately 30 dBA with the windows open. Interior sound levels will be lower with windows closed. The basis for this is as follows. The WHO 2018 guidelines claim "the differences between indoor and outdoor levels are usually estimated at around 10 dB for open windows…". The citation for this statement (Locher et al., 2018) is a paper based on a study of traffic noise, not wind turbine noise. A more relevant document to examine for reduction of outdoor sound to indoor sound would be one of the Health Canada papers "Effects of Wind Turbine Noise on Self-Reported and Objective Measures of Sleep". This research was one of the key sources omitted from the WHO 2018 report. Measurements from that study of wind turbine noise found that the average façade attenuation with windows completely opened was 14 dBA ± 2 dB(A).*

This reduction allows an outside sound level of 45 dBA such as proposed for this project to provide for an interior sound level of 30 dBA even with windows open.

c. DPS Staff recommends consulting with Staff on the details and goals indicated in "Table 3" prior to the Application being filed.

Response: The Applicant anticipates conducting such a consultation with Staff during the Stipulations process.

34. Section 2.19.2(k)(1) – Community Noise Impacts, Potential for Hearing Damage

Potential for hearing loss from blasting, if any, should be evaluated by using the recommendations of WHO-1999 consisting of not to exceed a peak sound pressure level of 140 dB for adults and 120 dB for children.

Response: Comment noted. The requested information will be included in the Application.

35. Section 2.19.2(k)(4) – Community Noise Impacts, Potential for Annoyance/Complaints

This section should be expanded to include at a minimum, WHO-2018 guidelines; ANSI S12.9 Part 4, Annex D, Section D.2.1; and NARUC-2011 guidelines.

Response: These documents and their relevance will be reviewed in the Application.

36. Section 2.19.2(n) – Input Parameters, Assumptions, and Data Used for Modeling

This section should be expanded to include submission to DPS Staff of CADNAA files, technical sheets with sound power levels from the turbine manufacturers, and wind speed data as collected and extrapolated from the meteorological tower(s).

Response: The requested information will be provided to DPS, subject to the necessary confidentiality requirements. See the revised text in Section 2.19.2(n) of the RSS.

Exhibit 20 – Cultural Resources

37. As noted above in comment [*13(a)*], DPS recommends that the 5- mile study area for historic architectural resources surveys (Phase 1A and 1B) should be expanded sufficiently to address the Cities of Norwich and Sidney in assessing visual effects on historic resources.

Response: See response to Comment 13a.

38. DPS reminds Applicant that 16 NYCRR 1001.24(b)(4) requires information from the Exhibit 20(b) surveys in assessing and selecting candidate viewpoints for photo-simulations and assessments of visual effect.

Response: Comment noted.

Exhibit 21 – Geology, Seismology and Soils

39. Section 2.21.2(a) – Existing Slopes Map

The map of existing slopes on and within the drainage area should identify potential receptor areas of stormwater runoff, including reservoirs within the Susquehanna River Basin and Chenango River Basin. The Applicant should identify sensitive environmental, agricultural, and human health and safety receptors for potential hazards associated with construction on extremely steep slopes (slopes greater than 25%). For any facilities proposed to be located in areas of extremely steep slopes, the Application should assess the risk of potential impacts associated with construction on these areas, including potential for extreme rainfall events leading to severe erosion hazards and water quality impacts at downstream water resources and aquatic habitats. Mitigation and avoidance measures, including alternative siting of Project Facilities, should be discussed for each location.

Response: Comment noted. The Applicant will include this information in the Application if these circumstances exist.

40. Section 2.21.2(f) – Excavation Techniques to be Employed

If horizontal directional drilling (HDD) is proposed, the Applicant should perform an evaluation of the suitability of existing soils and shallow bedrock, including an assessment of frac-out risk potential, based on the results of the preliminary geotechnical investigations and publicly available soils and bedrock data. The Inadvertent Return Plan should identify site specific potential receptors and establish frac-out monitoring, mitigation and response measures.

Response: The Application will include the requested information. See the revised text in Section 2.21.2(f) of the RSS.

41. Section 2.21.2(h) – Suitability for Construction

If existing soils are proposed for re-use as structural and/or compacted fill, including for buried collection lines and access roads, the Application should assess the suitability of existing soils specifically for those purposes and describe screening measures to remove materials that do not meet the fill composition characteristics recommended by the Applicant's geotechnical expert.

Response: As detailed in Section 2.21.2(h)(iii) of the PSS, the Preliminary Geotechnical Investigation will include an "evaluation of the suitability of existing soils for re-use as backfill." This evaluation will be summarized in Exhibit 21(h).

42. Section 2.21.2(o) – Soil Types Map

The PSS states that mapping of NRCS farmland designations (Prime Farmland, Prime Farmland (if drained), and Farmland of Statewide Importance) will be included in Exhibit 21 of the Application. Staff recommends that any areas of locally designated farmland should also be included in the maps.

Response: No locally designated farmland has been identified in the Applicant's review of publicly available information on the topic. Therefore, the Application will not include locally designated farmland in the maps identified in Section 2.21.2(o) of the PSS.

Exhibit 22 – Terrestrial Ecology and Wetlands

43. Section 2.22.2(a)(3) – Identification and Description of Plant Communities

Add the plant community mapping identified in 2.22.2(a)(3) to Appendix G Proposed Map Sizes and Scales.

Response: The plant community mapping identified in 2.22.2(a)(3) has been added to Appendix G of the RSS.

44. Section 2.22.2(h)(1)(ii) – Cumulative Avian Impacts

Item "a." states "[t]he Application will use the results of its eagle use surveys completed at the Facility to assess potential risk to bald and golden eagles, as compared to the local area population (LAP)." LAP is a term used by the USFWS and refers to eagle populations in a much larger area than New York State. LAP is one lens that impacts to eagles could be evaluated against. However, an evaluation of impacts to eagles in NYS and the region surrounding the proposed project is more relevant.

Response: This comment appears to conflict with NYSDEC comment 76. The Applicant anticipates discussing these topics and requests during the Stipulations phase to determine how best to address conflicting requests from the agencies.

45. Section 2.22.2(h)(1)(ii) – Cumulative Avian Impacts; and Section 2.22.2(h)(1)(iii) – Cumulative Bat Impacts. A description of cumulative impacts to birds and bats are offered on a per MW/year and per turbine/year basis. Per MW is the evaluation method employed by reviewing agencies. The application should provide cumulative impact discussions based in per MW/year only.

Response: The Applicant can provide cumulative impact discussions expressed per MW/year, however the request that this be provided "only" in that format is inconsistent with DPS Staff's prior request to provide this information per MW over the life of the Facility, and with requests from DEC Staff that this information also be provided on a per turbine basis. Therefore, the Applicant cannot agree to only provide the estimates cited.

46. Section 2.22.2(i) – Wetland Maps

To comply with the Application requirements at 1001.22(i), DPS advises:

a. The Applicant should perform wetland delineations within (1) all facility sites; and (2) within 500-feet of anticipated areas of disturbance. Delineations will be concurrent with the appropriate USACE Wetland Delineation Manual regional supplement and NYSDEC Freshwater Wetlands Delineation Manual for freshwater wetlands regulated under Article 24 of the New York Environmental Conservation Law (ECL).

Response: Comment noted. As stated in Section 2.22.2(i), wetland delineations will be conducted in all areas in the Facility Site within 500 feet of areas to be disturbed by construction. In response to Comment 13c, the Application has clarified the definition of the Wetland Study Area and the methods to be employed in delineating wetlands within this study area. See the revised text in Section 2.3.2(a)(5), Section 2.22.2(i)(2), and Section 2.22.2(j) of the RSS.

b. Wetland areas that occur outside of the facility site (1) on adjacent parcels; or (2) on adjacent parcels but within 500-feet of anticipated area of disturbance, that are not accessible, may predict the presence and extent of wetlands based on remote-sensing data, interpretation of published wetland, soil mapping and aerial photography.

Response: As detailed in Section 2.22.2(i)(3) of the PSS, the predicted presence and extent of wetlands outside the Facility Site but within 500 feet of areas to be disturbed by construction (e.g., wetlands within adjacent properties the Applicant does not have access to) will be approximated.

Exhibit 23 – Water Resources and Aquatic Ecology

47. Section 2.23.1 – Discussion – Surface Water

The PSS states that one NYSDEC protected stream (Kent Brook, a class C(T) stream), is located within the Facility Site and the Application will identify all NYSDEC mapped streams within the Facility Site. Staff advises that the Unadilla River, a class B surface water body, is located just outside the eastern edge boundary of the Facility Site. The Application should identify this water body and all tributaries within the Facility Site, and any potential impacts should be described.

Response: Comment noted. The Unadilla River and all tributaries within the Facility Site will be identified in the Application, and any potential impacts will be described.

48. Section 2.23.2(a) – Information on Groundwater

Staff advises that part of the Mount Upton Water District, which serves approximately 300 people, is within the eastern portion of the Facility Site. The Application should include maps showing the designated boundaries and evaluate any potential impacts to the community water system.

Response: The Application will include maps showing the designated boundaries of the Mount Upton Water District, based on publicly available data. If the Facility Site presented in the Application intersects the Mount Upton Water District, the Application will evaluate any impacts the Facility may have on the community water system.

49. Section 2.23.2(a)(2) – Information on Groundwater

The locations of public and private water wells should be verified through field observations where property access rights are obtained by the Applicant. Maps showing water well locations should distinguish whether each well location is approximate or confirmed.

Response: Comment noted. The Application will provide the information requested. See the revised text in Section 2.23.2(a)(2) of the RSS.

50. Section 2.23.2(a)(2) – Information on Groundwater

The content of the survey should include information on joining the stakeholder list. Staff recommends that the stakeholder list should be updated to include landowners who respond to the survey.

Response: Per the Applicant's response to Comment 8, all landowners included in the private water well survey will be defined as adjacent landowners and will be added to the Stakeholder List.

51. Section 2.23.2(b)(4) – Information on Surface Waters

The PSS states that the Application will include a map of all anticipated trenchless stream and wetland crossings. The map should indicate the length of each crossing. With respect to HDD operations, the Application should also include a narrative description of HDD operations and a diagram showing typical HDD equipment layout.

Response: The Application will include the information requested in Exhibit 23 of the Application and will include typical details/diagrams in the Preliminary Design Drawings (Exhibit 11).

Exhibit 24 – Visual Impacts

52. DPS Staff recommends that any visual stakeholders identified through the Viewpoint Selection process should be added to the master stakeholder list. In addition, the Applicant should consider hosting an in-person meeting of the visual stakeholders during the viewshed analysis process.

Response: All visual stakeholders will be added to the Stakeholder List. The Applicant may consider hosting an in-person meeting with visual stakeholder during the viewshed analysis process.

53. PSS Section 2.24.1 under "Visual Impact Assessment" states that "[t]hese "before" and "after" photographs – identical in every respect, except for the Facility components to be shown in the simulated views – will be provided." (PSS pg. 165). DPS advises that changes to land cover and development pattern or building/structure removals proposed as part of Facility development would be appropriate demonstrations for visual simulations.

Response: Comment noted. Simulations included in the Application will show Facility components and other changes that are relevant at a given viewpoint (e.g., changes in land cover or development). See revised text in Section 2.24.1 of the RSS.

54. Section 2.24.2 (a)(8), PSS page 170, DPS advises that rating criteria applicable to a particular location should be included in rating panel visual contrast rating reviews, and that a visual contrast rating category that is not relevant to a particular view should be considered "not applicable" rather than scored as "zero." In particular, DPS notes that there are few notable open water landscape sites in or near the proposed Facility Site. Therefore, the inclusion of "zero" scores in the "water" category for contrast rating from viewpoints without any visible water body included would only serve to artificially decrease the denominator in developing an "average" contrast score. (See PSS Appendix F – Visual Impact Rating Form, page 1 of 2.) For views from one of the local ponds or the Unadilla River NRI waterway, where a water body would be visible in the photograph and simulation view, the "water" category would be appropriate to report and analyze.

Response: Comment noted. Visual contrast rating categories that are not relevant to a particular view will be considered "not applicable" rather than scored as "zero."

55. Regarding discussion of "shadow flicker" visible effect of Facility operation at PSS pages 166-167, DPS advises that the National Association of Regulatory Utility Commissions (NARUC) recommends that 30 minutes per day be an evaluation criterion for considering annoyance; DPS requests that the Application include estimates of shadow flicker in hours per year and minutes per day at receptor locations.

Response: Please note, NARUC recommends 30 hours/year or 30 minutes/day at an occupied building. The Applicant has agreed to limit shadow flicker to 30 hours/year. We disagree with a criterion of 30 minutes/day of shadow flicker. The 30 hour/year limit was adopted by the Siting Board in the Cassadaga decision. In that case, DPS recommended the 30-hour limit and as explained below, no new science has developed supporting a 30-minute daily standard. There are two papers supporting the position that an additional daily limit on shadow flicker is not appropriate.

The first paper, published by Ellenbogen et al. (2012),[1] provides a substantive review of the health impacts of wind turbines. This paper cites the 2002 German guideline that specified shadow flicker should not exceed 30 minutes per day. The 2002 German guideline was based on a laboratory experiment, not actual field conditions experienced at one

[1] Ellenbogen, Jeffrey M., et al. "Wind turbine health impact study: Report of independent expert panel." *Prepared for Massachusetts Department of Environmental Protection and Massachusetts Department of Public Health* (2012).

or more wind turbine sites. The 2012 study also references a presentation given by Epsilon Associates, Inc. in 2011 on shadow flicker regulations. This slide was shown to present the range in regulations with respect to time limitations. The concluding slide of the presentation identifies only 30 hours per year of expected shadow flicker as the typical criteria used in evaluating shadow flicker impacts. Importantly, the German 30-minute daily guideline has been called into question.

The second paper, published by Voicescu et al. (2016)[2] examined shadow flicker and annoyance. When evaluated alone, without any other variable, the study concluded that shadow flicker's predictive strength for estimating high annoyance was only approximately 10%. Therefore, it is an inadequate model for estimating high annoyance to shadow flicker and no recommendation for a 30-minute daily limit was made in the paper. The findings presented in this paper are from the Community Noise and Health Study conducted by Health Canada. As discussed, the current knowledge regarding shadow flicker and annoyance does not support a 30-minute/day limit.

56. In the discussion of 2.24.2(b) Viewshed Analysis, at item (6) on page 174, DPS advises that it is pre-mature at the Scoping stage to limit consideration of mitigation measures including screening of wind turbines. Screening of all or part of tall turbines may be effective at locations nearby to affected resources (such as is proposed as a typical treatment for limiting shadow flicker at a particular receptor location).

Response: The cited language suggests that these mitigation measures would "generally not be effective." If a specific location or circumstance suggests differently, the Applicant is certainly willing to consider such an approach. However, the Applicant does not anticipate preparing simulations specific to mitigation of turbine visibility in most cases.

57. Comment [*53*] above regarding contrast rating criteria should be considered in developing the contrast rating scheme as described at 2.24.2(b) Viewshed Analysis, at item (7) on page 174.

Response: The Applicant will consider the comment [53] above when developing the contrast rating scheme in the VIA.

Exhibit 27 – Socioeconomic Effects

58. (JEDI) model, created by the National Renewable Energy Laboratory (NREL), to estimate job impacts. Staff is concerned with using the JEDI model because it has a number of limitations. For example, the JEDI model results reflect gross impacts and not net impacts, the JEDI model assumes fixed linear relationships, etc. (https://www.nrel.gov/analysis/jedi/limitations.html). Thus, Staff reserves the right to critique the economic model used by the Applicant and/or the input values entered into that job impact model. The Applicant should make available all job estimates and model work papers for Staff's review.

Response: Comment noted. While the JEDI model does have limitations, as any economic model, input values for the model will be customized and described to provide a reasonable and comparable basis for determining the economic impacts of wind energy projects in a consistent manner. The Applicant will make all job estimates, as well as economic multipliers and assumptions used, available for review by DPS Staff.

59. The Applicant should rely on direct job estimates for the construction and operational phases that are included in the Applicant's budgets for this project to inform socioeconomic effect estimates for the High Bridge Wind project.

[2] Voicescu, Sonia A., et al. "Estimating annoyance to calculated wind turbine shadow flicker is improved when variables associated with wind turbine noise exposure are considered." *The Journal of the Acoustical Society of America* 139.3 (2016): 1480-1492.

If High Bridge Wind, LLC or its parent companies, Calpine Corporation, has planned or completed other wind facilities in New York State or across the country, the Applicant should also seek to rely on actual job and economic impact numbers from previous projects in informing socioeconomic effect estimates for the High Bridge Wind project. The Applicant should make efforts to use actual job and economic impact numbers from projects that most closely resemble the High Bridge Wind project in terms of location, MW capacity, acreage, and/or regional economics.

Response: The Application will include a description of actual direct job and economic impacts numbers from similar projects, if available and feasible at the time of filing, to supplement the findings of the JEDI model.

60. The analysis of secondary employment and economic activity should also consider an analysis of other impacts such as the economic impact associated with the cancellation of new power plants made unnecessary by the added wind capacity and the economic impacts associated with possible changes in the retail price of electricity to reflect wind power incentives and subsidies. Finally, Staff proposes that the applicant commit to track and report the actual number of direct jobs created during the construction and operational phases of the project, as well as the tax payments to local jurisdictions made during the project (Cassadaga order in case 14-F-0490, condition #78).

Response: The Applicant will not conduct economic analyses associated with the cancellation of other power plants or wind power incentives and subsidies. Such an analysis is more appropriately performed by the Commission or Department of Public Service staff, given that those impacts will result from State policies and the Clean Energy Standard, regardless of which specific renewable energy facilities are ultimately constructed. Moreover, a recent study identified that one of the most significant drivers of the closure of fossil fuel plants is the price of electricity, particularly the low price of natural gas, and regulation of the energy sector, not the development of renewable energy projects. See US Department of Energy Staff Report to the Secretary on Electricity Markets and Reliability (August 2017), available at: https://bit.ly/2KNEnzJ (noting at page 13 that "[t]he biggest contributor to coal and nuclear plant retirements has been the advantaged economics of natural gas-fired generation," and further noting, from pages 13-60, that the largest number of recent fossil fuel plant retirements occurred in 2015, and corresponded with the deadline for coal and oil plants to implement pollution control equipment for mercury and air toxics, finalization of the Clean Power Plan, and "strong signals of future regulation," while the primary drivers of nuclear plant closures, aside from market conditions, were state policies/conflicts between states and nuclear generators, as well as looming significant plant maintenance issues).

Realistically, even if this analysis wasn't speculative in terms of "cancellation" of projects, it is beyond the capabilities, control, or responsibility of any individual developer to assess the overall economic impact of State energy policy on the energy system. Furthermore, it is the Applicant's understanding that an economic analysis of these kinds of impacts was performed in conjunction with adoption of the CES, and commenter is directed to those analyses for the requested information.

Regarding documentation of tax payments to local jurisdictions, this will be discussed in the Application. See also the revised text in Section 2.27.2 of the RSS.

The Applicant intends to track and report the incremental economic benefits created by implementing the standards and guidelines established by the New York State Research and Development Agency (NYSERDA) as part of the Renewable Energy Credit (REC) contract it awarded to High Bridge Wind (RESRFP18-1). For details on reporting standards, please see "Attachment M-RESRFP18-1 Incremental Economic Benefits Reporting Standards and Agreed Upon Procedures Report" available on NYSERDA's website: https://www.nyserda.ny.gov/All-

Programs/Programs/Clean-Energy-Standard/Renewable-Generators-and-Developers/RES-Tier-One-Eligibility/Solicitations-for-Long-term-Contracts

Exhibit 28 – Environmental Justice

61. DPS Staff advises that the Applicant provide the criteria used to determine an environmental justice community.

Response: As described on page 193 of the PSS, the Applicant utilized NYSDEC's regulatory definition for an environmental justice community, as set forth in 6 NYCRR 487.4, as well as NYSDEC's Geospatial Information System (GIS) Tools for Environmental Justice website (www.dec.ny.gov/public/911.html).

Exhibit 29 - Site Restoration and Decommissioning

62. Section 2.29.1 - Discussion

Page 194 of the PSS states that "[d]ecommissioning will be triggered if a wind turbine is non-operational for a continuous 18-month period, unless a longer period is otherwise agreed to by the Town and New York State Department of Public Service." DPS advise that decommissioning should be triggered if wind turbine(s) are non-operational for a continuous period of 12-months.

Response: As stated in Section 2.29.1 of the PSS, the Applicant proposing triggering decommissioning if a wind turbine is non-operational for a continuous 18-month period and if there is no expectation of returning the turbine to operation. In this event, the turbine(s) will be decommissioned within 12-month period. This period of time is sufficiently responsive, but still provides the Applicant the time necessary to address any issues contributing to the inoperability of a specific turbine.

63. Section 2.29.1 – Discussion

It is noted on page 194 that decommissioning will consist of removing Facility components down to 36 inches below grade. DPS recommends that Facility components located in agricultural land should be removed down to 48 inches below grade.

Response: Facility components sited in agricultural land will be removed to a depth of 48 inches. This will be reflected in the Decommissioning Plan appended to the Application. See also the revised text in Section 2.29.1 of the RSS.

Exhibit 35 – Electric and Magnetic Fields

64. Section 2.35.2 – Proposed Content of the Application

In addition to the requirements the Applicant agrees to adhere to, per §1001.35 through (d); information and analysis shall be provided for locations where the maximum current flow will result from co-located collection lines during peak load conditions.

Response: The information and analysis requested will be provided in the Application. See also the revised text in Section 2.35.2 of the RSS.

65. Section 2.35.2(b) – Base Case and Proposed Cross Sections

The Applicant shall provide all underground gas transmission facilities, as identified per §1001.35(b)(3).

Response: The Applicant will provide all underground gas transmission facilities, based on publicly available data.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

General Comments

66. Reports

NYSDEC requests that all draft and final reports, including wildlife survey reports (avian, bat, etc.), habitat, and wetland/stream surveys prepared for the Project be submitted to NYSDEC on an as-produced basis. Early receipt of such reports will eliminate or reduce the potential for later disagreements between NYSDEC and the Applicant regarding the sufficiency of studies or analyses that will be submitted in support of the Application.

An adequate report will include maps depicting the location(s), observation date(s), species, and behavior(s) of all threatened and endangered (T&E) species and species of special concern (SSC) individuals observed during pre-construction surveys and incidentally within and adjacent to the Facility site. Final reports incorporating comments provided by NYSDEC and US Fish and Wildlife Service (USFWS), along with any other supplemental material or information requested by these agencies, should be included with the Application.

All information and material described in Exhibit 22, including all associated attachments and appendices, should be provided to NYSDEC in full and un-redacted at the time the Application is submitted.

Response: The Applicant has been proactive in consultation with NYSDEC regarding wildlife studies and work plans. Reports will be provided to the relevant agencies when available. Wildlife survey reports (avian, bat, etc.), and habitat and wetland/stream surveys included in the Application will contain the information requested.

67. GIS Files

NYSDEC requests shapefiles suitable for use in GIS software via ESRI's ArcGIS suite of software (for example, ArcMap) containing all applicable Project and survey components as described in NYSDEC's *Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects* (June 2016) be submitted to NYSDEC as soon as possible. Shapefiles should depict:

The location of all Project components including (separately):

- Extent of Facility site.
- Turbine array locations.
- New access and maintenance roads.
- Existing roads that will be widened/altered.
- Electric collection and transmission lines (specified above ground and/or underground).
- Security fence lines, if applicable.
- Laydown and storage area(s).

- Substation(s).
- Temporary and permanent meteorological tower(s), if applicable.
- Any other temporary or permanent infrastructure constructed in support of the Facility.
- All areas to be cleared around turbines, access roads, electric lines, and all other Facility components.

All wildlife and habitat survey locations as applicable and labeled by year including (separately):

- Breeding bird survey transects/points.
- Eagle/raptor survey locations.
- Winter raptor survey locations and driving routes.
- Viewsheds for eagle/raptor and winter raptor observation points, indicating the area visible from each point.
- Bat acoustic monitoring and/or mist net locations, if applicable.
- Aerial raptor nest survey area and transects.
- Boundaries of all delineated wetlands, adjacent areas, and streams.
- The location(s), observation date(s), species, and behavior(s) of all T&E and SSC individuals observed during pre-construction surveys and incidentally within and adjacent to the Facility site; and any other survey information pertinent to the Facility.

All proposed impact areas including (separately):

- Areas to be removed, cleared or disturbed overlaid with approximate locations and extent of identified plant communities, including areas of invasive species concentrations.
- Stream crossing locations.
- Wetland and stream impacts.

Response: The Applicant will work with the NYSDEC to provide relevant GIS (e.g., using ArcGIS suite of software) shapefiles as available and appropriate, and as outlined in the PSS. In addition, Facility-specific and survey-specific shapefiles will be provided concurrently with the filing of the Application, so long as permitted by applicable protective orders, and the Applicant will work with NYSDPS and NYSDEC to determine the final list of shapefiles to be provided.

68. Wetland Delineations

NYSDEC recommends the Applicant schedule field visits with NYSDEC and US Army Corps of Engineers (USACE) staff prior to the submission of an Application to review final wetland delineations, make determinations, and evaluate resulting impact calculations. NYSDEC requests that all information, including maps and GIS files of delineated wetlands, be provided to NYSDEC as soon as delineations are completed and preferably before the Application is submitted, to allow for NYSDEC to determine the full extent of State wetland jurisdiction.

Response: Following the wetland delineation effort, the Applicant will coordinate with the NYSDEC and USACE to schedule the jurisdictional determination field visit prior to the submission of the Application, if possible. The Applicant will provide maps and GIS files of delineated wetlands to NYSDEC as soon as such materials are finalized.

Specific Comments

69. PSS § 2.22.1: Terrestrial Ecology and Wetlands – Discussion

NYSDEC notes that there are two regulated freshwater wetland areas on the Facility site - one in the northern portion of the Facility site and one in the southwestern portion of the Facility site. The Applicant has identified these wetland areas - GL-2 (Class IV wetland) and GL-3 (Class III wetland) - at page 131 (Table 6) and page 134 (Table &7) of the PSS.

NYSDEC notes that it is aware of several bald eagle nests within 10 miles of the project area, including one less than 2 miles from the project. Potential impacts to these resources will need to be considered and discussed in the Application.

Response: Comment noted. The Applicant has received a map from the NYNHP of all NYNHP known bald eagle nests within the Facility Site and within 10 miles of the Facility Site and will conduct aerial surveys of raptor nests within the Facility Site and within 10 miles of the Facility Site to confirm the nests identified by the NYNHP are occupied or active and document any new bald eagle nests or other raptor nest within the Facility Site, and any new bald eagle nests within 10 miles of the Facility Site. The Application will provide the information requested.

Statement. PSS § 2.22.2: Terrestrial Ecology and Wetlands – Proposed Content of the Application

NYSDEC acknowledges that, at pages 134 – 149 of the PSS, the Applicant has provided a detailed outline of the proposed contents of Exhibit 22 of the Application. This outline tracks the structure of 16 NYCRR § 1001.22, which establishes the minimum required content of Exhibit 22. Exhibit 22 will describe the potential impacts to terrestrial ecology and wetlands if the Article 10 application is granted and the Facility is constructed and operated.

NYSDEC's comments on § 2.22.2 of the PSS likewise follow the structure of 16 NYCRR § 1001.22. These comments are meant to inform the Applicant of the type of specific information and analyses NYSDEC would expect in Exhibit 22 of the Application (and in any guiding stipulation) in order to allow NYSDEC to sufficiently review the Facility's impacts on terrestrial ecology and wetlands.

70. 16 NYCRR § 1001.22(a):

This portion of Exhibit 22 should include:

- A narrative description of the following:
    - Approximate locations and extent of identified plant communities,including areas of invasive species concentrations.
    - All ecological communities identified within parcels that will host Facility components as well as adjacent parcels.
    - A list of all plant species observed during on-site field investigations and incidentally while in the Facility site, including the date(s) each species was observed.
- The sources of information should include on-site surveys, roadside surveys from adjacent parcels, review of recent aerial imagery and National Land Cover Data information.

Response: As stated in Section 2.22.2(a) of the PSS, the Application will describe ecological communities within the Facility Site, will provide mapping all ecological communities located within the 500 feet of areas to be disturbed by Facility construction activities, and will otherwise provide the information requested relative to ecological communities. At stated in Section 2.22.2(b)(2) of the PSS, the Application will provide mapping that will show the location and extent of identified concentrations of invasive species in areas of proposed disturbance.

71. 16 NYCRR § 1001.22(b):

This portion of Exhibit 22 should include:

- A summary impact table that quantifies the number of acres of each plant community type impacted.
    - Vegetation impacts include any temporary and permanent impacts, and indirect impacts to existing, non-invasive plant communities, particularly grasslands, interior forests, wetlands, shrublands, and young successional forests.
    - Permanent impact calculations should include: (1) all areas disturbed by Facility components; (2) all tree clearing for construction of the Facility; (3) permanent conversion of one plant community type to another.
    - A discussion and evaluation of fragmentation to grasslands and forested habitat.
- Maps and GIS files depicting the limits of disturbance (all areas of vegetation clearing and ground disturbance) overlaid with approximate locations and extent of identified plant communities, including areas of invasive species concentrations.

Response: As detailed in Section 2.22.2(b)(1) of the PSS, the Application will include a summary impact table that quantifies the number of acres of each ecological community type impacted. This impact table will include the following impact categories: permanent impact (i.e., areas converted to built facilities), permanent conversion (i.e., areas disturbed during construction and maintained by the Applicant in a successional state), and temporary impact (i.e., areas disturbed by the Applicant during Facility construction that will be allowed to revegetate following soil stabilization). See the revised text in Section 2.22.2(b) of the RSS.

As detailed in Section 2.22.2(f) of the PSS, the Application will include a discussion and evaluation of habitat fragmentation. As detailed in Section 2.22.2(a)(3) and Section 2.22.2(b)(1) of the PSS, the Application will include maps depicting the limits of disturbance overlaid with approximate locations and extent of identified plant communities. The limits of disturbance shown in these maps will include the limits of clearing and the limits of soil disturbance. See also the revised text in Section 2.22.2(b)(1) of the RSS. Invasive species will be mapped as described in Section 2.22.2(b)(2) of the PSS.

72. 16 NYCRR § 1001.22(c):

This portion of Exhibit 22 should include:

- A discussion of avoidance and minimization measures showing how, to the maximum extent practicable, linear Facility components such as access roads and interconnection lines will be co-located with existing features and with each other, and all turbines, buildings, storage areas, and other structures will be constructed in areas already developed or disturbed.
- A discussion of mitigation measures including how post-construction vegetative restoration (for example, reseeding disturbed areas with appropriate native seed mix or planting native woody species, as necessary) will be used to recreate or enhance wildlife habitat.

Response: The Application will include a discussion of how the Facility has been designed to avoid impacts to plant communities, including utilizing existing disturbed areas, and co-locating Facility components. This section of the Application will also discuss mitigation measures, as applicable, that will be used to recreate or enhance wildlife habitat. See also the revised language in Section 2.22.2(c) of the RSS.

73. 16 NYCRR § 1001.22(d):

This portion of Exhibit 22 should include:

- A characterization of aquatic and terrestrial vegetation, wildlife and wildlife habitats within the Facility site, including a narrative description, detailed location map, and discussion of potential impacts for each of the following:
    - Habitats that are known to support or could potentially support State species of greatest conservation need (SGCN).
    - Calcareous shoreline outcrops and karst features.
- Identification and delineation of vernal pools, including surrounding upland habitat, within 500 feet of all proposed areas of disturbance, verified under appropriate seasonal conditions. If vernal pools are identified, the Application shouldinclude:
    - Ecological characterization data.
    - Detailed location maps.
    - Results of site-specific surveys for amphibians and reptile species conducted under appropriate seasonal conditions and developed in consultation with NYSDEC.
    - Potential impacts that may occur to vernal pools and the species that utilize them
- A characterization of aquatic and terrestrial vegetation, wildlife and wildlife habitats as documented during on-site field investigations (for example, ecological cover type assessments, habitat assessments, wildlife surveys, and delineation of wetlands, streams and other regulated waters).
- Locations of bat hibernacula and maternity roosts located within the study area based on available data from the USFWS, New York Natural Heritage Program (NYNHP), NYSDEC, and any studies conducted by the Applicant. If the Applicant identifies bat hibernacula or maternity roosts within the study area, or five miles from any Facility component or boundary, the location and distance to each identified hibernaculum and roost should be provided separately and confidentially to NYSDEC as soon as possible.

Response: At stated in Section 2.22.2(d) of the PSS, the Application will contain the information requested regarding aquatic and terrestrial vegetation, wildlife and wildlife habitats, and bat hibernacula and maternity roost sites.

With respect to vernal pools, consultation with the NHP regarding rare or state-listed animals and plants and significant natural communities was received on January 23, 2019 (See RSS Appendix J). The NHP's report did not identify any amphibians/reptiles, and vernal pools were not listed as sensitive habitat. Based on publicly available data, vernal pools are not expected to be impacted by the Facility and therefore should not require specific study. Vernal pools will be identified and delineated within the 500-foot Wetland Study Area and verified under appropriate seasonal conditions. If vernal pools are identified, they will be documented and potential impacts that may occur to vernal pools and the species that utilize them will be evaluated. Section 2.22.2(d)(1)(viii) of the RSS has been updated to reflect this.

74. 16 NYCRR § 1001.22(e):

This portion of Exhibit 22 should include:

- At a minimum, the list of species should be developed from the followingsources: NYNHP; NYSDEC; USFWS; local bird/wildlife experts; Herp Atlas; Breeding Bird Atlas; Breeding Bird Surveys; Christmas Bird Counts; Hawk Migration Association of North America; eBird; The Nature Conservancy surveys/reports; The Kingbird publication; and documentation from on-site field investigations (for example, ecological cover type assessments, habitat assessments, wildlife surveys, and delineation of wetlands, streams and other regulated waters).

- The list should also specify whether each species was observed, known to occur within the Facility site, and/or is predicted to occur based on habitat characteristics and historical records.

Response: The Application will provide the requested information. See also the revised language in Section 2.22.2(e) of the RSS.

75. 16 NYCRR § 1001.22(f):

This portion of Exhibit 22 should include:

- Identification, evaluation, and assessment of direct and indirect impacts to federally and State-listed T&E species and their habitats, SSC and SGCN.
    - The NYSDEC Regional Wildlife Office should be contacted to obtain the most recent breeding, wintering, and habitat data for State-listed species.
    - The USFWS Field Office in Cortland, New York should be contacted to obtain the most recent breeding, wintering, and habitat data for federally listed and protected species.
    - The USFWS and NYSDEC should be contacted for guidance on any further studies that may be required to evaluate the potential impacts the Facility could have on federally listed and protected, and State-listed T&E species, respectively.
- A discussion of the extent, methodology and results of all avian, bat and other wildlife surveys conducted by the Applicant or its agents within or in the vicinity of the Facility site.
- An analysis of construction and operational impacts to wildlife concentration areas, migration corridors, and wildlife habitat resulting from habitat fragmentation.
- An analysis of incidental injury and mortality to wildlife, including the displacement of wildlife from preferred habitat and habitat disturbance and loss associated with vegetation clearing, caused by construction activity, vehicular movement, and earth-moving activities.
- An analysis of impacts to wildlife, including functional loss and degradation of habitat, forest and grassland fragmentation, and wildlife displacement, caused by operation and maintenance of the Facility.
- An analysis of potential short- and long-term impacts to plants, animals, and habitats that may result from the application of any biocides during site preparation, construction, operations, and/or maintenance of the Facility.
- A summary impact table quantifying potential temporary and permanent impacts to wildlife habitats; wildlife concentration areas or travel corridors; and all vegetation cover types, including grasslands, interior forests and young successional forests; resulting from construction and operation of the Facility.
- Identification of Grassland Focus Areas, forest interior blocks, and any other state, county or locally-identified wildlife concentration areas or migration areas.

Response: As stated in Section 2.22.2(f) of the PSS, the Application will include the information requested. In developing this information, the Applicant will consult with the NYSDEC Regional Wildlife Office, USFWS Field Office in Cortland, New York, and, more generally, with the USFWS and the NYSDEC. During Stipulations discussions the Applicant will seek clarification from the NYSDEC with regard to the definition of the terms "forest interior blocks," "young successional forests," and "vicinity," and verify the extent to which the requested information is applicable the proposed Facility.

76. 16 NYCRR § 1001.22(g):

This portion of Exhibit 22 should include:

- An analysis and discussion of measures to avoid impacts to vegetation, wildlife, wildlife habitat, federally and State-listed and protected species, SSC, and SGCN to the maximum extent practicable.
- If direct and indirect impacts associated with habitat loss, fragmentation and displacement cannot be demonstrably avoided to the maximum extent practicable, impacts should be minimized to the maximum extent practicable through appropriate Facility siting; Facility design; construction controls; operational measures; and access road, electric line, and Facility component siting.
- A discussion of appropriate, effective, and timely mitigation measures for any demonstrably unavoidable impacts. Such mitigation measures should be determined only after avoidance and minimization measures are evaluated and agreed upon by all parties and must result in a net conservation benefit to the target species.

Response: This information will be generally be included in Application as described in the PSS/RSS. The Applicant anticipates providing information regarding impact avoidance and minimization, along with proposed mitigation, in the Application.

77. 16 NYCRR § 1001.22(h)(1):

This portion of Exhibit 22 should include:

- A discussion of potential construction and direct impacts to avian and bat species, based on the findings of the pre-construction surveys.
- A cumulative impacts analysis to avian and bat species (particularly all State-listed T&E species, and migratory tree bats) and the habitats that support them, that could result from construction and operation of the Facility. This should include a discussion of the potential cumulative impacts of the Facility on avian and bat species and the habitats that support them with respect to the other wind energy project or turbines that are currently operating and proposed to be constructed in the State and the northeastern US. The cumulative analysis should include:
    - Avian and bat occupancy and usage of the Facility site should be compared with other proposed and operating wind energy projects located in NYS and the northeastern US where publicly available data are available. Analyses should be based on a comparative evaluation of the extent, methodology, and results of the pre-and/or post-construction wildlife studies conducted for the Facility, and other wind energy projects for which data are publicly available, as well as any additional information provided by NYSDEC and USFWS.
    - Discussion and/or calculations describing current installed wind capacity in NYS as well as the estimated increase in installed NYS wind capacity during the expected life of the Facility.
    - Estimated avian mortality (birds/turbine/year and birds/MW/year) documented in NYS and the northeastern US, in the past 20 years.
    - Estimated avian mortality (birds/turbine/year and birds/MW/year) annually and over the expected life of the Facility.
    - A description of bat mortality (bats/turbine/year and bats/MW/year) documented in NYS and the northeastern US, in the past 20 years.
    - A description of estimated bat mortality (bats/turbine/year and bats/MW/year) annually and over the expected life of the facility.
    - Likely species composition of bird and bat mortalities at the Facility, based on pre-construction studies conducted within or nearby the Facility, and post-construction study results from operating projects.

- Estimated risk to and take of federally listed or protected and State-listed species, based on publicly available post-construction studies done in the State and northeastern US, and any other publicly available relevant information.
- An examination of potential population effects of wind turbine-caused mortality to migratory tree bats (eastern red bat, hoary bat and silver-haired bat).

Response: As discussed in Section 2.22.2(h)(1) of the PSS, the information requested will be provided. See also the Applicant's responses to Comment 44 and Comment 45.

78. 16 NYCRR § 1001.22(h)(2):

This portion of Exhibit 22 should include:

This section should include information associated with a proposed post- construction wildlife monitoring plan to be implemented to assess direct and indirect impacts of the Facility on avian and bat species and their habitats. The details of a full post-construction monitoring plan should be developed on a site-specific basis through discussions between NYSDEC, the Applicant, and USFWS (if federally-listed species may be impacted), and, at a minimum, specify the following: the expected and allowed level of take of each target species; survey monitoring methods, effort, scope, and duration; data reporting and compliance documentation; construction parameters; proposed adaptive management responses, if applicable; and mitigation measures sufficient to ensure the Applicant complies with the substantive requirements of 6 NYCRR Part 182. A final work plan should be approved by NYSDEC and NYSDPS and be in place prior to the start of Facility operation.

Response: The Application will provide the information requested. See also the revised text in Section 2.22.2(h)(2) of the RSS.

79. 16 NYCRR § 1001.22(h)(3):

This portion of Exhibit 22 should include:

- A description of the avian and bat avoidance and minimization measures to be implemented at the Facility.
- Acceptable mitigation options for demonstrably unavoidable avian and bat impacts.
- Mitigation actions the Applicant proposes to undertake to provide a qualified and quantified net conservation benefit to each impacted species.
- Potential monitoring and adaptive management responses and operational adjustments (i.e. appropriate and effective curtailment regimes) to be implemented at the facility.
- Support studies and reports (for example, Avian Risk Assessment, Net Conservation Benefit Plans) which will describe compliance with the substantive requirements of 6 NYCRR Part 182 and measures to avoid, minimize, mitigate impacts to T&E avian and bat species. This will include a discussion of a curtailment regime (including operational details of cut in speed, seasonal dates, temperature and time), as well habitat conservation easements, description of field work proposed or completed, and any other actions needed to comply with Part 182.

Response: As described in Section 2.22.2(h)(3) of the PSS, the Application will include the information requested, including mitigation options for unavoidable bird and bat impacts. See also the revised text in Section 2.22.2(h)(3) of the RSS.

80. 16 NYCRR § 1001.22(i):

This portion of Exhibit 22 should include:

- A discussion of on-site field delineation methodology of wetlands and other waters of the US within 500 feet of Facility components specifying that it should be done as follows:
    - For federally regulated wetlands and other waters of the US the delineation should be done in accordance with the USACE *Wetland Delineation Manual* (Environmental Laboratory, 1987), and the appropriate *Regional Supplement to the U.S. Army Corps of Engineers Wetland Delineation Manual*.
    - For wetlands regulated under ECL Article 24, the delineation should be done in accordance with the *New York State Freshwater Wetlands Delineation Manual* (1995).
- On-site delineations of vernal pools within 500 feet of facility components should be done in accordance with the appropriate regional supplement.
- Wetland boundaries should be defined in the field by sequentially numbered pink surveyor's flagging marked "wetland delineation", the locations of which should be documented using Global Positioning System technology with reported sub-meter accuracy. Delineated wetland boundaries must be verified by the USACE and NYSDEC.
- Remote sensing for wetlands beyond 500 feet of facility components, or those wetlands wherein the Applicant does not have access, should include observations made from public roads and adjacent parcels; interpretation of aerial imagery; analysis of topography; existing databases of hydric soils and; wetland and soils mapping maintained by National Wetland Inventory and NYSDEC.
- All wetland boundaries should be keyed to the Preliminary Design Drawings. The interpolated boundaries shown on site plans should be differentiated from field delineated boundaries when displayed on maps, site plans, and GIS files.
- Map scale should be 1":50' and include all facility components; proposed grade changes; limits of ground disturbance and vegetative clearing.

Response: As detailed in Section 2.22.2(i) of the PSS, the Application will include the information requested. See also the revised text in Section 2.22.2(i) of the RSS.

81. 16 NYCRR § 1001.22(j):

This portion of Exhibit 22 should include:

- A summary table of wetland delineation information, including the wetland's alpha- numeric code if the wetland is regulated or eligible for regulation under ECL Article 24.

- Copies of all Wetland Determination Data Forms compiled into a Wetland and Stream Delineation Report.

Response: As detailed in Section 2.22.2(j) of the PSS, the Wetland Delineation Report appended to the Application will include the information requested. See also the revised text in Section 2.22.2(j) of the RSS.

82. 16 NYCRR § 1001.22(k):

This portion of Exhibit 22 should include:

- The methodology proposed by the Applicant to evaluate functions and values.
- A discussion of educational and scientific value of wetlands.
- An analysis of production export of wetlands.

- An assessment of protected, T&E species habitat in wetlands.

Response: As discussed in Section 2.22.2(k) of the PSS, the Application will include the information requested.

83. 16 NYCRR § 1001.22(l):

This portion of Exhibit 22 should include:

- An assessment of whether the off-site wetlands currently are or could be regulated under ECL Article 24 including both "mapped" and "unmapped wetlands" that meet NYSDEC's 12.4-acre size threshold (including any wetlands of any size separated by less than 50 meters which function as a unit in providing wetland benefits, pursuant to 6 NYCRR Part 664, or otherwise meet State criteria for jurisdiction (for example, wetlands or vernal pools determined to be of Unusual Local Importance, pursuant to 6 NYCRR 664.7(c)).
- A summary of off-site wetlands adjacent to the Facility site and any disturbed areas that may be hydrologically or ecologically influenced or impacted by development of the Facility, including Significant Coastal Fish and Wildlife Habitat Areas designated by NYS Department of State, and publicly owned lands, to determine their general characteristics and relationship, if any, to the delineated wetlands within the Facility.

Response: As discussed in Section 2.22.2(l) of the PSS, the Application will include the information requested.

84. 16 NYCRR § 1001.22(m):

This portion of Exhibit 22 should include:

- A quantification of temporary and permanent impacts to all wetlands and State- regulated 100-foot adjacent areas and permanent forest conversions based on the proposed footprint of all Facility components and associated impact assumptions. Final impact calculations to the 100-foot adjacent area of State-regulated wetlands and associated mitigation should be based on verified delineation boundaries for jurisdictional wetlands.
- A summary table including the following information: the type of impact, including but not limited to permanent or temporary fill and forest conversion, to each wetland and adjacent area; associated crossing methodology for each wetland, clearly discerning between federal and State wetlands, and adjacent area impacts; acreage of each type of impact to regulated wetlands and adjacent areas; alpha- numeric code if the wetland is regulated or eligible for regulation under ECL Article 24; and the page number on preliminary design drawings depicting the resource.
- A separate set of site plan drawings at 1":50' scale showing wetland boundaries, permanent and temporary structures, stream crossings, roads, power interconnects, and the limits of disturbance.

Response: Potential impacts to wetlands and streams, and State-regulated 100-foot adjacent areas (i.e., resulting from the construction and operation of the Facility) will be identified in the Preliminary Design Drawings (Exhibit 11) and in a separate figure set at a scale of 1":50' (see Section 2.22.2(m) and Section 2.22.2(i) of the RSS, see also the Applicant's response to Comment 79).

85. 16 NYCRR § 1001.22(n):

This portion of Exhibit 22 should include:

- A discussion of all avoidance and minimization measures considered during site planning and design. The discussion of avoidance and minimization measures should be updated upon final verification of wetland boundaries and jurisdictional determinations.
- A detailed alternative analysis for siting utility corridors, access roads and turbine locations. The alternative analysis should be based on the final verified delineation boundaries.
- A conceptual wetland mitigation plan for unavoidable impacts to wetlands and adjacent areas. The proposed mitigation must occur on or in the immediate vicinity of the Facility site (preferably in the same wetland) and provide equal or greater benefit. Once mitigative measures are complete, the wetland should be regulated under ECL Article 24.
- Off-site mitigation should only be considered if an analysis is provided showing that all options within the immediate vicinity were thoroughly evaluated and determined to not be feasible. In-lieu-fee does not meet the State requirements for mitigation.
- A discussion of adaptive management actions to be implemented if the wetland mitigation is not successful.

Response: As discussed in Section 2.22.2(n) of the PSS, the Application will discuss the measures and methods implemented by the Applicant to avoid and minimize wetland impacts. If state regulated wetlands are impacted by the Facility, the Applicant will comply with the substantive requirements and weighing standards of 6 NYCRR 663.5.

86. 16 NYCRR § 1001.22(o):

This portion of Exhibit 22 should include:

- A discussion of impacts to federally and State-listed T&E species, SSC, and SGCN and their habitats and a summary impact table containing information on listed and protected species in these categories. Such a table should include, at a minimum, the following: species name; federal status; State status; if species was observed on site or potentially occurring in the Facility; source of information indicating potential or documented presence of species; discussion of the type of impact (direct and/or indirect) that may occur to each species; estimated take of each listed species, and; evaluation of all impact avoidance measures considered and, if full avoidance is not feasible, a discussion of why such actions are not practicable.
- A Threatened and Endangered Species Avoidance, Minimization and Mitigation Plan that meets the requirements of Part 182 and demonstrates net conservation benefit to the affected listed species.
- The Incidental Take Permit application components pursuant to 6 NYCRR Part 182.

Response: The requested information will be included in the Application. See also the revised text in Section 2.22.2(o) of the RSS.

87. 16 NYCRR § 1001.22(p):

This portion of Exhibit 22 should include:

- A list of all non-native invasive plant, vertebrate, invertebrate, fungal, algal and cyanobacteria species observed during site-specific field investigations, incidentally while on site for other purposes, and known to occur within the Facility.
- GIS files of any concentrations of non-native invasive plant species.
- An Invasive Species Prevention and Management Plan (ISPMP) that addresses all of the species listed in 6 NYCRR Part 575 and includes:

- A summary of the survey methods to be used to identify and mark existing non-native invasive species within the Facility site (that is, a baseline survey), including the transmission line corridor.
- An action plan for pre-construction management of non-native invasive species, including threshold for action.
- Specific methods to be used to ensure that packing material, imported fill and fill leaving the Facility site should be free of non-native invasive species material, seeds, and parts to the extent practicable.
- Specification on how fill materials to be placed within the Facility site will be free of non-native invasive species material, seeds, and parts, by source inspection or other method, or only used within areas already containing those specific non-native invasive plant and invertebrate species infestation.
- A detailed description of specific Facility site grading, erosion and sediment control methods that will be used to prevent the introduction, spread, or proliferation of all non-native invasive species to the extent practicable.
- Details of procedures for preventing the spread of invasive invertebrates and diseases, and a discussion of how the Applicant will comply with the State quarantine and protective zones, where applicable.
- Implementation plans for ensuring that equipment and personnel arrive at and depart from the Facility site clean and free of all non-native invasive species material, seeds, and parts. The protocol for inspection of equipment arriving at the Facility Site should be provided in the Application.
- A detailed description of cleaning procedures for removing non-native invasive species material, seeds, and parts from equipment and personnel, and properly disposing of materials known to be or suspected of being infested.
- The detailed description of the Best Management Practices or procedures that will be implemented, and the education measures that will be used to educate workers.
- The detailed description of a post-construction monitoring and corrective action plan (covering at least a five-year period), to achieve the ISPMP's goals of no new invasive species in the Facility area and no new locations of existing invasive species in the Facility area. This post-construction and corrective action plan should contain survey measures and procedures for revising the ISPMP in the event that the goals of the ISPMP are not met within a specified timeframe.
- The anticipated methods and procedures used to treat invasive species that have been introduced or spread as a result of the construction, operation or maintenance of the facility (based on comparisons against the baseline survey).
- Landscape re-vegetation plans, including specification of native seed mix to be used, as appropriate.

Response: As detailed in Section 2.22.2(b)(3) of the PSS, the Application will include an Invasive Species Control Plan that will provide the information requested.

88. PSS § 2.23.1 Water Resources and Aquatic Ecology - Discussion

1. NYSDEC confirms the Applicant's statement at page 151 of the PSS that there is one protected stream (Class C(T)) (Kent Brook) that runs generally north-south through the center of the Facility site. NYSDEC notes that there are additional Class C streams in the study area that will need to be considered by the Applicant.

Response: Comment noted.

NEW YORK STATE DEPARTMENT OF HEALTH

89. Section 2.19 – Noise and Vibration

The Preliminary Scoping Statement (PSS) indicates that it will include annual, seasonal and L_{night} 8-hour noise modeling. Department of Health (DOH) staff requests the applicant model the annual logarithmic average day-evening-night weighted sound pressure (L_{den}) levels as defined in section 3.6.4 of ISO 1996-1:2016 for participating and non-participating (including seasonal residences) receptors in addition to the highest Leq 1-hour (a surrogate for maximum $Leq_{8\ hour,\ night}$ and maximum $Leq_{16\ hour,\ day}$) and $L_{night,\ outside}$. The L_{den} noise descriptor should also be added to the tabular noise modeling results inclusive of annual maximum daytime ($Leq_{16\ hour,\ day}$), annual maximum night ($Leq_{8\ hour,\ night}$) and annual logarithmic average nighttime ($L_{night,\ outside}$) noise levels that can be directly compared to WHO (1999, 2009, 2018) guidelines for both participating and non-participating receptors (including seasonal residences) to evaluate potential sleep disturbance and annoyance. The PSS should refer to exhibit 15 for the evaluation of health impacts. Please modify the PSS accordingly.

Response: See response to comment 29.

90. Exhibit 23 – Water Resources and Aquatic Ecology

The PSS indicates that the applicant will consult the NYSDEC and Chenango County Department of Health for water well locations and Chenango County Department of Health for surface water intake locations. DOH should be the primary agency contact regarding the presence of public drinking water supplies (wells and surface water intakes).

Response: Comment noted. The NYSDOH will be the primary agency contacted by the Applicant in determining the presence of public drinking water supplies. The Applicant has already been in contact with DOH's Albany Offices on this matter and will continue to coordinate to obtain that information.

91. Exhibit 24 – Visual Impacts

DOH staff requests that the applicant reference NARUC (2012) "Wind Energy & Wind Park Siting and Zoning Best Practices and Guidance for States" as it includes both short- and long- term flicker guidelines. This section of the PSS should also refer to Exhibit 15 for the evaluation of potential short-term and long-term health impacts, including annoyance and photosensitive epilepsy potential, associated with shadow flicker. Please update the PSS accordingly.

Response: See the Applicant's response to Comment 54. The Applicant is agreeing to a design goal of 30 hours/year for shadow flicker. According to the Epilepsy Foundation, "Generally, flashing lights most likely to trigger seizures are between the frequency of 5 to 30 flashes per second (Hertz)." The type of wind turbines proposed for this Project have a maximum rotational speed of less than 16 rpm which corresponds to a frequency of 0.8 Hz. This frequency is well below the frequency identified by the Epilepsy Foundation; therefore, the triggering of epileptic seizures is not a concern with this Facility.

ONEIDA INDIAN NATION

92. The Nation requests that High Bridge Wind, LLC continue to discuss with the Nation the Project's APE, level of effort to identify historic properties, presence or absence of historic properties, National Register of Historic Places eligibility, findings of no effect or adverse effect and measures to address or resolve adverse effects. The Nation also request that High Bridge Wind, LLC notify the Nation if any federal agencies become involved in the permitting process for the Project,

Response: Comment noted. The Applicant will continue to coordinate with the Oneida Nation and will document this outreach process in the Application. The Nation should have recently received a letter regarding visual outreach, seeking input on visually sensitive sites within the Visual Study Area.

CHENANGO COUNTY DEPARTMENT OF PLANNING AND DEVELOPMENT

93. The Lt. Warren E. Eaton Airport (KOIC), located in the Town of North Norwich, is a valuable economic asset to Chenango County. The FAA and Calpine Corporation should do their due diligence in assuring this economic asset is not disturbed by interrupting the flight path in and out of Lt. Warren E. Eaton Airport. It would be advisable for a representative from the FAA and/or Calpine to not only talk with the Airport Manager as indicated in the scoping statement, but also to attend a meeting of the Chenango County Airport Steering Committee to discuss potential impacts this project could have on current or future plans at Lt. Warren E. Eaton Airport (KOIC). The Chenango County Airport Steering Committee meets monthly on the 2nd Monday of Every month at the Airport.

Response: As noted in the PSS Section 2.25.2 the Applicant will evaluate potential impacts to airports, airspace and related radar resources through a formal consultation process with the FAA that is required by Title 49 of the United States Code, Section 44718, and through direct consultations with airport managers, including the manager of the Lt. Warren Eaton Memorial Airport, which was identified as a stakeholder in the Applicant's Public Involvement Program (PIP) Plan. See PSS pages 176-77. The Applicant will describe in detail these consultations, and modifications to the Facility made as a result of the consultations, in Exhibit 24(f). Following submission of the PSS, the Applicant circulated outreach letters to the Lt. Warren E. Eaton Airport and the Sidney Airport to initiate this consultation process.

94. Additionally, the Village of Sidney Municipal Airport in Sidney, NY is home to LifeNet of New York (7-8 Sidney), where a medivac helicopter is stationed. For the safety of residents in Chenango County and other adjacent communities, the FAA and Calpine Corporation should do their due diligence in assuring this resource is not compromised by meeting with representatives from LifeNet of New York (7-8 Sidney). In most cases, timely arrival at accidents or medical emergencies is crucial and should not be delayed due to the physical locations of the proposed turbines. Volunteer emergency squads in Chenango County continue to struggle with recruitment and LifeNet's ability to arrive is a comfort to many of our residents should an emergency occur at their homes or as they travel within the proposed area.

Response: As noted in the response to Comment 92, the PSS outlines the process for evaluating potential impacts to air transportation and airports and identifies the Sidney Municipal Airport as a stakeholder with whom the Applicant will consult in connection with this project. See PSS page 177. Following submission of the PSS, the Applicant circulated outreach letters to the Lt. Warren E. Eaton Airport and the Sidney Airport to initiate this consultation process.

95. On page 175 of the scoping statement, it would be my request that LifeNet of New York (7-8 Sidney) be included in the list of "Local Emergency Service Providers". As stated above in comment #2, LifeNet of New York (7-8 Sidney) provides a very valuable emergency service to our community.

Response: The Applicant will add LifeNet of New York to the Stakeholder List and to the list of local emergency providers and will include this entity in its consultations. See also the revised text in Section 2.25.1 of the RSS.

96. As stated in the letter by the Wahlberg's at 804 Wahlberg Road submitted electronically on February 12, 2019, the view shed at the corner of Wahlberg Road and County Road 36 facing west should be considered a visually sensitive resource. As a former resident of the Town of Guilford, I would commonly stop at this location in the late evenings on my way home from work to admire the sunsets which were present on nice days. A visual impact

study should be done on this location to make sure this resource is not impacted by the proposed wind turbines, overhead transmission and collection lines, proposed clearing limits, proposed FAA warning lights, shadow flicker, and any other forms of visual impact brought on by this proposed project. Consultation with the Chenango Land Trust should be requested and encouraged. Assisting the community with designation of this site as a visually sensitive resource could be considered a good faith effort by Calpine Corporation to the community.

Response: Formal visual outreach letters were recently sent to various municipal planning representatives, including the Chenango Land Trust. The Applicant will continue to consult with these planning representatives to identify potential locally sensitive visual receptors and viewpoint used on the VIA.

97. As stated on page 108 of the scoping document, there are many sites of cultural and historical importance in the Town of Guilford and surrounding communities. While it is said this project will not cause any physical changes to these sites, there could be the potential for visual impact. I would request consultation by Calpine Corporation with the Chenango County Historical Society, Chenango County Historian, Town of Guilford Historian Tom Gray and Town Historian's from other municipalities whose historical properties fall within the 5-mile radius.

Response: Towns within 5 miles of the Facility, as well as the Town of Guilford and Chenango County, are identified as stakeholders with whom the Applicant has consulted and will continue to consult on topics such as potential visual impacts. This consultation has included outreach specific to potential visual impacts, which requested that recipients identify any potential historic properties or other significant sensitive sites (not already identified in the outreach materials) for potential inclusion in the Applicant's visual impact assessment. Many of the entities identified by the commentator have been included in the outreach conducted to date. The Applicant will ensure that ongoing outreach efforts include all the individuals and entities identified by the commenter.

ROBERT DAVIS, RESIDENT IN THE TOWN OF GUILFORD AND CHAIRMAN OF THE GUILFORD TOWN PLANNING BOARD

98. I believe that the comment period on the Preliminary Scoping Statement should be extended. The notice of the opportunity to comment was received locally on Monday, February 11th with a deadline of three days later, February 14th. More time should allow more members of the public to participate in the process.

Response: In November 2018 and again in December 2018/January 2019, the Applicant published ads in local newspapers and circulated notices which informed members of the public and project stakeholders that it would soon file its PSS, which would start the clock on the regulatory 21-day public comment period. See Applicant's proof of service and publication filed February 4, 2019. The PSS was then filed on January 24, 2019, and notices were issued by the Siting Board on January 31 setting the comment deadline for February 14. On February 4, 2019, the Examiners contacted the Applicant requesting that an additional notices be issued regarding the PSS comment deadline and intervenor funding. Those notices were published and mailed as requested on February 8. See Applicant's proof of service and publication filed February 15, 2019. However, after learning that many stakeholders and members of the public did not receive this second round of notices until February 11, the Applicant submitted a request to extend the PSS Comment deadline through February 28. The Examiners granted that extension, and comments were accepted for an additional two weeks.

99. Our understanding is that few previous wind projects have built turbines at this height (600 feet).in a settled rural landscape. I believe that the Siting Board should consider carefully whether the minimum distances from residences being used in planning the location of turbines is adequate. The company has stated in its proposal that it intends to respect the Comprehensive Plan adopted by the Town of Guilford. In the survey of residents

that began that planning process, a large majority of respondents cited the town's scenic beauty as one of the reasons they most valued living in the town. One method of evaluating the desirability of this project should be to determine to what extent its visual impact damages what the town's residents cite as one its primary attractions as a place to live.

Response: As described in the PSS Section 2.24, and per the Article 10 Regulation 1001.24, a Visual Impact Analysis will be prepared and included in the Application. Other topics identified, such as setbacks, will be addressed in the Application.

100. Some of our residents are concerned about the project's impact on the value of their property. They have received assurances from NYSERDA representatives that any decrease would be temporary based on data from past projects. The question here is how pertinent that data is given the much larger size of these towers. This should be an area of analysis by the Siting Board.

Response: As described in Section 2.27, the Applicant will prepare a project-specific Socioeconomic Report that will be appended to the Application.

DAVID DIBBELL

101. As a designated contact for the Airport Steering Committee for the Lt. Warren E. Eaton Chenango County Airport at Norwich, NY, this comment is to request direct engagement to review the impact on instrument approach and departure procedures. This relates to the requirement to review the potential hazards to air navigation with the FAA (pages 176-177 of the PSS.) The three instrument procedure documents published for the Lt. Warren E. Eaton Airport are attached to illustrate the concerns. For the RNAV (GPS) RWY 1 approach (06148r1.pdf), the final approach course from GINNS to FENUB to OLGAE passes just west of the project near North Pond, at altitudes that raise concern about obstacles higher than now exist in this area. For the RNAV (GPS) RWY 19 approach (06148r19.pdf), the missed approach procedure from as low as 1,700 ft MSL at HOKVA first directs a course toward and through the project area generally northeast of North Pond, then turning toward GINNS. For the RWY 19 instrument takeoff procedure (ne2to.pdf at page L20), a departure would presently allow turning on a course to the southeast after first reaching 2,100 ft MSL. This would include flight paths directly through or over the project area at altitudes which could be a concern.

    The Airport Steering Committee wishes to preserve the instrument approaches and departures presently available at the Lt. Warren E. Eaton airport, without requiring higher minimum altitudes than presently published. It is acknowledged that modifications to the existing procedures by the FAA could mitigate the issues and meet this intent.

Response: The Applicant will continue to coordinate with representatives for the Lt. Warren E. Eaton Chenango County Airport.

V. R. WESTGATE

102. Bird Migration Impact: Does Calpine do any evaluations/studies on bird migration in the migratory area to be impacted BEFORE they construct the turbines? If not, why not? What value would studies be after the turbines are built?

Response: As described in Section 2.22 of the PSS and in Appendix H, the Applicant will perform a variety of pre-construction avian studies (I.e., Breeding Bird Surveys, Eagle Use Surveys, and Raptor Migration Studies).

103. Does Calpine have on record and have they shared with necessary parties the results of any/all studies they have done with established wind farms in the United States and are these studies completed on turbines the same size as the ones proposed for Guilford?

Response: Studies performed for the High Bridge Wind project are project-specific and will be included with the Application.

104. Based on the results of these studies, how does NYS make a determination as to how much collateral damage ie bird deaths is allowed vs too much?

Response: The Applicant cannot speak to New York State's policymaking process or its process for evaluation of potential impacts from land development, including wind energy. As described in Section 2.22 of the PSS, the Application will address the anticipated impact of the Facility on avian resources, and the avoidance, minimization, and mitigation measures proposed by the Applicant to address those impacts.

105. What state agencies are asked for input on establishing a wind turbine farm and how do the citizens in Guilford gain access to their agency recommendations?

Response: The Article 10 Certification process for major electric generating facilities, which New York State requires for all large projects such as the High Bridge Project, requires the involvement of dozens of stakeholders at all levels of government, and is overseen by a 7-member body called the New York State Board on Electric Generation Siting and the Environment (the "Siting Board"). The permanent Siting Board is made up of representatives from the New York State Departments of Health, Environmental Conservation, Public Service, Economic Development and the New York State Energy Research and Development Authority (NYSERDA). For each project, two project-specific, locally nominated "ad hoc" members are selected to sit on the Siting Board. In addition to the state agencies with permanent seats on the Siting Board, the Article 10 law explicitly grants Party Status to the New York State Department of Agriculture and Markets, the Department of State, the State Office of Parks, Recreation and Historic Preservation, and host municipalities. See New York Public Service Law 166. Further, the Applicant is required to provide its Application and related information to the New York State Department of Transportation and the Attorney General's Office. NYPSL 164. The New York State Department of Homeland Security must be consulted specifically regarding certain emergency planning related to power generation projects. State Senators and Assemblymembers for impacted communities must also be kept informed. Finally, where a project implicates other State or Federal agencies, nonprofit organizations, Indian Tribes, or other potential stakeholders, Applicants like Calpine include those agencies in a Master Stakeholder List and provide notifications and project information to those agencies throughout the Article 10 Process.

Comments, recommendations, testimony and documents submitted by State agencies participating in the Article 10 process are available to members of the public through the Siting Board's website. Transcripts of official proceedings are prepared and posted to that website as well. To the extent that individual agencies have guidance or other information on wind energy, those agencies generally make that available on their own websites.

106. The Town of Guilford did at one time pay for a study to be completed that would assess or evaluate town roads in order to somehow "protect" them from any excess or severe road damage from any potential companies and their use of our roads which could result in severe damage and find taxpayers in Guilford having to "pay the bill" in dollars that would far exceed any monetary gain to the town of such road use; was this Road Use Law ever finalized and put in place? If not why not? If not and if Calpine or any other company damaged our fragile town

roads transporting turbine blades in lengths that make making road turns difficult, who pays the bill? If the laws are not in place today has the time to do so passed in terms of potential impact of road damage and making the user, responsible?

Response: The Applicant cannot speak to the portion of this question addressed to the Town of Guilford, however as noted in the PSS Section 2.12 (Construction), 2.25 (Transportation) and 2.31 (Local Laws and Ordinances), the Application will address the potential impacts on local roads during construction, as well as any plans or agreements between Calpine and the Town of Guilford for assessing the pre-construction condition of local roadways, the the potential impacts from construction on local roadways, and plans for restoration and repair of roadways damaged by construction activities. Generally, the Applicant would propose a Road Use Agreement or similar agreement with the Town, and potentially with Chenango County, to address these issues to the satisfaction of the municipalities, and in conjunction with any applicable local laws or ordinances, as identified in Section 2.31 of the PSS.

107. Regarding the entire project, High Bridge Wind Turbine Project, what control of the project is under the auspices of the Town? County? State?

Response: In enacting Article 10 of the New York Public Service Law in 2011, the State Legislature granted the Siting Board sole authority over the siting, construction and operation of all major electric generating facilities, of which the High Bridge Wind Project is one. Therefore, the State Siting Board maintains jurisdiction over the permitting process currently under way. A number of State agencies, as well as the Town of Guilford and Chenango County, are statutory parties to that permitting process, and will play an important role in this Article 10 proceeding. If the project is approved by the Siting Board, the permitting process would result in a Certificate which would outline the Applicant's obligations, among other things, and identify which government entities would enforce various aspects of the Certificate, such as the issuance of Building Permits. Initial outlines of these obligations and roles will be presented in the Article 10 Application, to the extent that information is known at the time.

108. What practical responsibilities does the state of New York take responsibility for in regard to Guilford and its taxpayers if the project costs more than the revenue it creates?

Response: As discussed in the Preliminary Scoping Statement sections 2.14 and 2.31, and as will be addressed in greater detail in the Application, the Facility is not anticipated to result in direct costs to the Town of Guilford, such as for road repairs or fire protection services. Many of those costs would be borne by the Applicant through mechanisms such as a Road Use Agreement, special district taxes, and other local tax or community benefit agreements. Moreover, this Facility is proposed by a private company and would generate electricity to be sold in the competitive wholesale energy market. As with any business, the Applicant must draw on its experience and resources to design a project that can compete in those markets and generate a profit; the risks associated with potential unprofitability are borne by the Applicant, as they would be for any other business. As will be shown in Exhibit 29 of the Article 10 Application, High Bridge Wind will need to submit a detailed Decommissioning Plan and a reliable financial security mechanism, such as a bond or letter of credit, to ensure that the Facility can be removed and the lands restored at the end of the project's useful life, even in the event that the Facility's owner went bankrupt or no longer exists. High Bridge Wind will be required to address those issues to the satisfaction of the Siting Board before the Facility can be permitted or constructed, ensuring that even in the most unlikely and extreme cases, provision is made to ensure the community is not responsible for those costs.

109. With regard to revenue, what has been the actual practice or outcome for local-county and state governments in other parts of the country where Calpine has set up turbine farms?

Response: The Application will include a discussion of Calpine's background and experience in the energy sector. Calpine Corporation is America's largest generator of electricity from natural gas and geothermal resources with operations in competitive power markets. Our fleet of 79 power plants in operation or under construction represents approximately 26,000 megawatts of generation capacity. Through wholesale power operations and our retail businesses Calpine Energy Solutions and Champion Energy, we serve customers in 24 states, Canada and Mexico. Our clean, efficient, modern and flexible fleet uses advanced technologies to generate power in a low-carbon and environmentally responsible manner. We are uniquely positioned to benefit from the secular trends affecting our industry, including the abundant and affordable supply of clean natural gas, environmental regulation, aging power generation infrastructure and the increasing need for dispatchable power plants to successfully integrate intermittent renewables into the grid. Please visit www.calpine.com to learn more about how Calpine is creating power for a sustainable future.

110. How many years have most of these farms lasted in other states and are there any potential costs to the communities they are built in when/if they are de-commissioned?

Response: Please see the response to Comment 107 above regarding Decommissioning. Generally, the expected life of a wind farm is approximately 25-30 years.

111. If the town of Guilford is stepped over by the state with all necessary approvals for these turbine farms, can taxpayers in Guilford be potentially impacted in a negative way with our property taxes? Does the landowner approved for turbines generally find his property taxes go up or down? If their taxes go down, aren't other residents expected to make up the lost tax revenue by seeing their property taxes go up in order to in effect make up the difference?

Response: As noted in the PSS Section 2.27, the Article 10 Application will include information on potential socioeconomic impacts from the Facility and will address the issue of potential property value impacts. Generally, numerous studies have shown that wind farms do not cause a significant long-term decrease in property values. Rather, wind projects such as the High Bridge project contribute significant annual revenues to local tax bases, while using very few of the municipal services which other types of land development rely on, such as school bussing.

112. Given the costs of such a proposed project, what estimates have NYS and the Town of Guilford projected they will see in increased revenue and if they do not know why not?

Response: As noted in the PSS Section 2.27, the Article 10 Application will include information on potential socioeconomic impacts from the Facility. Issues such as payment in lieu of tax agreements or other host community benefits will need to be negotiated with the Town in the coming months.

113. In practice, have other communities where these farms are built seen a net increase in town revenue?

Response: The Applicant cannot speak to this for wind farms developed by other companies or developed in other Towns. However, as stated in response to comment 107, agreements such as the Host Community Agreement, PILOT Agreement, and Road Use Agreement are designed to provide a direct benefit to the local community at no direct cost to the local community. The benefits generated by these Agreements are incremental and only materialize when the Project is constructed and operated. Therefore, the Town may see an increase in revenue due to the construction and operation of the Project.

HOLLY AND WENDY WAHLBERG

114. As part of the Visual Impact Assessment (VIA), we hereby request that the open meadow parcel owned by Holly and Wendy Wahlberg at the corner of Wahlberg Road and County Road 36 be identified as a visually sensitive resource requiring a visual impact analysis and photo-realistic simulation to assess the visibility and visual impact of all proposed wind turbines, overhead transmission and collection lines, proposed clearing limits, proposed FAA warning lights, shadow flicker, and all other forms of visual impact on this sensitive scenic resource.

Response: As described in the PSS, the Applicant will perform a range of visual outreach efforts. This information will be added to any response received from the visual outreach efforts and considered during the preparation of the VIA.

115. The view from the corner of Wahlberg Road and County Road 36 has long been considered one of the most important scenic views in Chenango County; local residents routinely pause here to enjoy the outstanding visual panorama at this location and often taking photos (including wedding and graduation photos). The exceptional merit of this view and the Wahlberg family's diligent protection of this scenic resource since 1935 was recognized by the Chenango Land Trusts Land Stewardship Award in 2007.

Response: See response to Comment 113.

116. Additionally, we request that outreach be done to the Guilford Historian, Guilford Historical Society, the Chenango County Historian, the Chenango County Historical Society, and the Chenango Land Trust in order to compile a complete list of additional potential sensitive locations of historic, archaeological, cultural, and/or scenic importance within the 5 and 10 mile zones. Two sites within the 5 mile Facility footprint (the N. Guilford Church and the N. Guilford Cemetery) clearly have historical importance and we hereby request that they be included in the VIA process.

Response: The Guilford Historian, Guilford Historical Society, Chenango County Historian, Chenango County Historical Society, and Chenango County Land Trust, among others, have been included in visual outreach efforts. The North Guilford Church and the North Guilford Cemetery have been added to the list of visually sensitive resources and will be included in the VIA process.

CHRISTINA AND DAL UTTER

117. We have archaeological concerns regarding several sites found on Fred Utter Road, Town of Guilford. Not far from High Bridge Road are rock overhangs and behind them are approximately a dozen stone piles. One field, not far from Fred Utter Road, has produced many Indian artifacts that date back 3,000 years. Fred Utter Road, at one time, continued all the way back and came out on High Bridge Road. Along this section, that is no longer utilized, can be found foundations, a hand dug well, fence stone pilings, and some unique sections of a stone wall. This place pre-dates 1855. We would ask that the wind energy project avoid this historic area.

Response: As described in the PSS Section 2.20, cultural resources, including archeological resources, will be evaluated and potential effects will be described in the Application. The entire APE for Direct Effects (i.e., the area containing all proposed soil disturbance potentially associated with Facility construction and operation) will be subjected to pedestrian reconnaissance (in addition to any pedestrian surface survey or shovel testing). Therefore, any stone piles or rock overhangs within or adjacent to the APE for Direct Effects will be documented and evaluated during the Phase IB archaeological survey. Additionally, if impacts are proposed in fields in the vicinity of Fred Utter Road, those

areas will be subjected to shovel testing and/or pedestrian survey in order to identify and map the pre-contact Native American materials referenced.

Regarding the foundations and other historic features along the former route of Fred Utter Road, areas where proposed Facility components are located in proximity to structures that are depicted on historic maps of the area will be prioritized during the selection of areas for shovel testing. The former route of Fred Utter Road and the former structure locations are depicted on the 1855 Fagan Map of Chenango County, New York as well as the 1915 USGS Unadilla, NY 15-minute 1:62,500 Topographic Quadrangle, both of which have been reviewed for the Phase IA Archaeological Resource Survey. If any of these former structure locations occur within or adjacent to the APE for Direct Effects, they will be documented and evaluated (by shovel testing and/or pedestrian survey or reconnaissance) during the Phase IB archaeological survey.

DANIEL HARRINGTON

118. The enormous size (600 ft. plus) of the proposed turbines should be a concern to all. These are much bigger than most people realize - see the attached size graphic.

Response: As described in the PSS Section 2.24, potential visual impacts from the proposed Facility will be thoroughly addressed in the Article 10 Application.

119. I am very concerned about several things: the visual impacts that 600' Turbines will have on our picturesque rural area, property values (especially those who will be forced to live in close proximity, a local realtor confirmed that some of our residents' property values will be permanently impacted), impacts to the health of those people effected by the steady infrasound that is continually putout for miles (infrasound being the low frequency sound that travels for many miles and is heard by our pets, wildlife and also effects some people) and Shadow flicker on or around homes. These concerns are not overblown.

Response: As described in the PSS Section 2.24, potential visual impacts from the proposed Facility will be thoroughly addressed in the Article 10 Application.

120. I understand why and don't blame our residents who are leasing, it's a lot of money, but our area should not be dominated by 600' Turbines in order to benefit a few residents and a large company from another state.

Response: Comment noted.

PRISCILLA WELDEN

121. It is insulting for myself and my neighbors to receive a notice in the mail of the filing of the PSS on Monday the 11th and be expected to file comment by Thursday the 14th. I am not surprised as this seems to be among the many tactics allowed by NY State in this process.

Response: In November 2018 and again in December 2018/January 2019, the Applicant published ads in local newspapers and circulated notices which informed members of the public and project stakeholders that it would soon file its PSS, which would start the clock on the regulatory 21-day public comment period. See Applicant's proof of service and publication filed February 4, 2019. The PSS was then filed on January 24, 2019, and notices were issued by the Siting Board on January 31 setting the comment deadline for February 14. On February 4, 2019, the Examiners

contacted the Applicant requesting that an additional notices be issued regarding the PSS comment deadline and intervenor funding. Those notices were published and mailed as requested on February 8. See Applicant's proof of service and publication filed February 15, 2019. However, after learning that many stakeholders and members of the public did not receive this second round of notices until February 11, the Applicant submitted a request to extend the PSS Comment deadline through February 28. The Examiners granted that extension, and comments were accepted for an additional two weeks.

122. After reading through many of the projects, filings, responses and stipulations of projects in the article 10 process, I have come to the unfortunate conclusion that as well meaning as it may seem to those in Albany, the state and the article 10 process actually has no interest in the safety or well being of those people who would be forced to live within close proximity of the worlds largest turbines. It is clear that information, research and testimonials are carefully picked and presented to the siting board and blindly accepted, while those representing the opposing view are ignored and others are left out.

    I strongly believe that Calpine and the State of NY are well aware of the many risks that this imposes on a small rural community and they see us as an unfortunate casualty in the race for clean energy, the green deal and the vote.

    Much of the research on these issues had been done outside of this country, where most of the technology has progressed as well. It is foolhardy to say that american science doesn't exist and forgo the facts and research done in other countries.

    While the state and Calpine admits that the technology is new and ever changing, they are referencing old studies and omitting facts. They should know better. We may be a small community of farmers and we may not be rich or have fancy educations. We do have resilience, adaptability and natural resources. I fully intend to encourage my community to use the home rule law to eliminate this intrusion upon our community. There is much research to be done on this topic, I do not think that our community is where we should have that science experiment.

    I am confident that there is a better approach to facing the fears of global warming. If some people think introducing the green new deal is brave, let us be braver. Admit that this solution may be detrimental to human and animal health BEFORE we subject millions of people to it. Lets be honest, and humble in our work. Lets not promise to fix yesterdays problems on the backs of tomorrow.

    I hope that any employee of the state that reads this finds themselves questioning their morals and can further find a way to use their education and position to move forward in this ever changing world without compromising the health and well being of those people that live with them. It is easy to forget about those of us who do the hard and thankless work. We are the stewards of the land.

    Do you know who your farmer is?

Response: Comment noted.

JESSICA GOMBACH AND KELLER WILLIAMS

123. As a homeowner as well as a concerned community member, I would like to point out the huge impact this project will have on our property values, health, daily living, and general aesthetics of what Guilford really looks like now

to what it will look like after this is built. As a professional realtor, and much research alone from communities hit by turbines property values can decrease anywhere from 22-50% in value based on research. Is anyone going to give us landowners a property value guarantee? If not what will be in our favor for our losses? I think the public needs to be aware of this when being told nothing will happen.

Response: As noted in the PSS Section 2.27, the Article 10 Application will include information on potential socioeconomic impacts from the Facility and will address the issue of potential property value impacts. Generally, numerous studies have shown that wind farms do not cause a significant long-term decrease in property values. In adopting the Article 10 regulations, the Siting Board expressly declined to require property value guarantees, finding that such a requirement was likely unconstitutional. The Article 10 Application will include numerous studies, such as a visual impact assessment, discussions of public health and safety, and other matters, which will address the topics raised by this comment.

NEAL CALVIN

124. I support the 100 MW wind turbine project proposed by the applicant. I believe that any project that a developer wants to build to compete and provide power into the NYISO's wholesale energy market is a good project. The project will provide revenue streams for local land owners that lease their land to the facility. The project should appease environmental groups concerned with CO2 emissions. The project is being privately financed for the most part (although name a large project in New York that isn't financed by some development agency). I believe the wildlife and health concerns are overblown in rural Chenango County. Further, I appreciate the "expert" liaising between department staff and the petitioner in regards to Exhibit 8 of the application, not that the impact of the proposed project on the energy output of local nuclear, hydro, or wind projects should be an issue under the purview of the Siting Board for a project that will be competitively bidding into the NYISO's wholesale market.

Response: Comment noted.

RONALD AND PAULETTE GURAL

125. As a resident of Guilford for many years. I have a deep concern of the impact from the High Bridge Wind Project. Attached are just two photos that will impact the view from the HBWP if this goes through. Many people come from not just Guilford but the surrounding areas take in this beautiful view . We do not want this here!

Response: Comment noted.

MICHELE C. HARTWELL

126. As a resident of the Town of Guilford, NY in the proposed site of the High Bridge Wind Project site I would like to express my concerns. My home lies directly across from the junction of Fred Utter Road and High Bridge Road. Because this is at the bottom of the ridge were the towers are proposed to be constructed I feel the water table that feeds my well from the many springs on the hillside will be disrupted. Also because this is a proven high Radon area, I feel the great amount of disruption of the land that would be needed for this project would put us at risk for this becoming a bigger issue. Our Valley is one of the few areas of NYS that is still very limited in cell phone reception and airwave television reception. I feel because this project can potentially negatively affect these services it would put our area further behind in this technological world. My concerns also include the use

and disruption of road frontage in your use of our public roads for your necessary accesses and easements. I certainly would like to see very specific and detailed maps of your intended routes and needs of changes to be made to make them acceptable for your use. I thank you for your time and consideration of my concerns.

Response: As noted in the PSS, potential Facility impacts on water resources will be addressed at Exhibit 23 of the Application; potential impacts on communications, such as cell phone and television reception, will be addressed at Exhibit 26 of the Application; traffic and construction routes would be addressed in Exhibit 25 of the Application, and detailed maps and site plans would be provided in conjunction with Exhibit 3 of the Application. Further, as a private company, the Applicant cannot install facility components on public or private lands, including within a public right-of-way without an easement or lease agreement with the landowner. The Applicant anticipates working with the Town of Guilford to develop a Road Use Agreement which will ensure that damage to local roadways caused by large vehicles during construction is repaired at the Applicant's expense, and to the specification required by the Town. Those matters would also be discussed in the Application.

MEMBER OF ASSEMBLY 122ND DISTRICT, CLIFFORD W. CROUCH

127. Please accept this correspondence as my Letter of Support for two wind projects currently under development within my district, the Bluestone Wind Farm located in Broome County, New York and the High Bridge Wind Farm located in Chenango County, New York. These projects will foster much needed economic development in our region through increased tax revenues, the creation of additional high-quality jobs, and an increased demand for local goods and services .

Representing a rural district, we are in need of this economic boost to help support our education, aid county and local services, and generally help our communities thrive for future generations.

These projects are a good source of clean, locally generated power that will promote economic prosperity and environmental stewardship and will support the New York State Energy Plan. The Bluestone Wind Farm and High Bridge Wind Farm will not only enable economic growth in the towns of Sanford, Windsor, and Guilford, they will also help facilitate the State of New York's energy future. I believe it is important that we are behind the initiatives of individuals and organizations dedicated to improving the lives of all who reside in the community. Therefore, I lend my full support to the development of the Bluestone Wind Farm and the High Bridge Wind Farm to help bring more opportunities to the Southern Tier.

Response: Comment noted.

Appendix J

New York State Department of Environmental Conservation Response to New York Natural Heritage Program Data Request

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

January 23, 2019

Jason P. Ritzert
Western Ecosystems Technology, Inc.
1017 Mumma Road, Suite 103
Lemoyne, PA 17043

Re: High Bridge Wind Project
County: Chenango Town/City: Guilford

Dear Mr. Ritzert:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the revised footprint of the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

Information on NYSDEC's environmental review of proposed wind energy projects is at www.dec.ny.gov/docs/wildlife_pdf/winguide16.pdf, as is the document Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects. Note that as part of assessing potential impacts of bird and bat collisions, NYSDEC looks at state-listed birds documented within 10 miles of the project site and state-listed bats documented within 40 miles of the project site. New York Natural Heritage has no records of state-listed bats within 40 miles of the project site.

Bald eagle (*Haliaeetus leucocephalus*, NYS-listed as Threatened) has been documented nesting at multiple locations within one to ten miles of the project site.

For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

Sincerely,

Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program

1479

Visual Impact Rating Form Instructions

Project Name:	High Bridge Wind Project	**EDR Project No:**	18054
Date:	June 20, 2019		
Reference:	Visual Impact Rating Form - Instructions		

These instructions are intended to guide personnel conducting visual impact assessment contrast ratings through EDR's Visual Impact Rating Form.

Viewpoint Number & Viewpoint Location:

Please fill this in based on the information in the title block for each photograph/viewpoint that is provided.

Your Name/Date:

Please complete.

Landscape Similarity Zone:

The definition of landscape types found in a given study area provides a useful framework for the analysis of available visual resources and viewer circumstances. These landscape types, or Landscape Similarity Zones (LSZs), are defined based on the similarity of features such as landform, vegetation, water, and land use patterns. The LSZs within the study area include:

Forest
Rural Residential/Agricultural
Village
Open Water
Transportation Corridor

For a full description of each LSZ, please see the attached descriptions.

Viewer Type:

The different categories of potential viewer types found in a given study area provides a useful framework for the analysis of viewer sensitivity. Viewer types are defined as Local Resident, Through-Traveler/Commuter, and Tourist/Recreational User. Please infer who the mostly likely viewer(s) is/are based on the location and context of the view. For instance, if the photo shows a residential or concentrated settlement, check *resident*. If the viewpoint is a roadway location, check *traveler*, and if the viewpoint is from an aesthetic/recreational resource, check *recreational*. More than one viewer type may be present at a given location. Please also refer to the Viewpoint Context Sheet for location maps and additional photographs.

Designated Aesthetic Resources:

The visual study area includes a variety of public resources and/or designated visually sensitive resources that are of potential statewide significance. These include:

- **Properties of Historic Significance:** Sites listed on the National or State Register of Historic Places (NRHP & SRHP), sites eligible for listing on the N/SRHP
- **Designated Scenic Resources:** Sites, areas, lakes, reservoirs or highways designated or eligible for designation as scenic
- **Public Lands and Recreational Resources:** Heritage areas, trails, local parks and recreation areas, named lakes, ponds, and reservoirs
- **High-Use Public Areas:** State, US, and Interstate Highways, schools, cities, villages, and hamlets

Please refer to the Viewpoint Context Sheet, viewpoint location maps, and photographs from each viewpoint to determine whether the view is from a specific visually sensitive resource.

Viewpoint Description:

Please describe the view in your own words, focusing on the landscape components described below.

- *Landscape Composition:* The arrangement of objects and voids in the landscape that can be categorized by their spatial arrangement. Basic landscape components include vegetation, landform, water, and sky.

- *Form, Line, Color, and Texture*: These are the four major compositional elements that define the perceived visual character of a landscape. Form refers to the shape of an object that appears unified; often defined by edge, outline, and surrounding space. Line refers to the path the eye follows when perceiving abrupt changes in form, color, or texture; usually evident as the edges of shapes or masses in the landscape. Texture in this context refers to the visual surface characteristics of an object.

- *Focal Point*: Certain natural or man-made landscape features stand out and are particularly noticeable as a result of their physical characteristics. Focal points often contrast with their surroundings in color, form, scale, or texture, and therefore tend to draw a viewer's attention. Examples include prominent trees, mountains, and water features. Cultural features, such as a distinctive barn or steeple, can also be focal points.

- *Order*: Natural landscapes have an underlying order determined by natural processes. Cultural landscapes exhibit order by displaying traditional or logical patterns of land use/development. Elements in the landscape that are inconsistent with this natural order may detract from scenic quality.

- *Atmospheric Conditions*: Clouds, precipitation, haze, and other ambient air related conditions affect the visibility of an object or objects and can greatly impact the design elements of form, line, color, texture, and scale.

- *Lighting Direction*: Backlighting refers to a viewing situation in which sunlight is coming toward the observer from behind a feature or elements in a scene. Front lighting refers to a situation where the light source is coming from behind the observer and falling directly upon the area being viewed. Side lighting refers to a viewing situation in which sunlight is coming from the side of the observer to a feature or elements in a scene.

- *Visual Clutter*: Numerous unrelated built elements occurring within a view can create visual clutter, which adversely impacts scenic quality.

Viewpoint Sensitivity:

Please rate the sensitivity of each viewpoint as determined by scenic quality and viewer exposure, as follows:

Scenic Quality:

Please rate the scenic quality of the existing view without the project in place. An undeveloped landscape containing a variety of landscape features at different distances from the viewer or a landscape containing one or more aesthetically important structures might be at the high end of the scale, while a landscape that appears monotonous or is already impacted by infrastructure or industrial facilities might be at the low end. Most residential areas will fall into the moderate category, unless they are either historic neighborhoods or degraded/abandoned. Note that designation as a scenic or recreational resource is an indication that there is broad public consensus on the value of that particular resource. The particular characteristics of the resource that contribute to its scenic or recreational value provide guidance in evaluating a project's visual impact on that resource. However, the scenic quality rating you assign should be based on your individual judgment.

View Exposure:

Some views are seen as quick glimpses while driving along a roadway or hiking a trail, while others are seen for a more prolonged period of time. Longer duration views of a project, especially from significant aesthetic resources, have the greatest potential for visual impact. Please infer the frequency and duration of views based on the Viewer Type, LSZ, viewpoint context, and viewpoint location map. Please indicate whether there is potential for continuous or repeated exposure (such as residences, village intersections, and principal transportation routes with an open view towards the project), brief or occasional exposure (such as openings in otherwise screened areas or secondary roads that most people will not use on a daily basis), or rare exposure (such as viewpoints that are clearly off the beaten track and/or represent small areas of narrow visibility in otherwise completely screened areas).

Contrast Rating:

Please rate the level of contrast that you perceive between the existing landscape components (as they appear in each in photo) and the effect that the proposed project has on those components. Please provide a numerical rating between 0 and 4 for each landscape component, where:

0 = Insignificant Contrast
1 = Minimal Contrast
2 = Moderate Contrast
3 = Appreciable Contrast
4 = Strong Contrast
* (please make use of .5 to allow for refinement or ambivalence between any of these ratings, e.g., 2.5 = Moderate to Appreciable Contrast).

Please then also describe in your own words the factors in the appearance of the photo that contribute to or affect the degree of contrast for each landscape component. Please consider the following for each landscape component:

Landform: Please consider the effect of the project relative to the appearance of the type/form of the landform, the edge of the line, the strength and range of color, the density of relief, the space as defined by the landform, and the extent of its scale.

Vegetation: Please consider the effect of the project relative to the appearance of the form(s) and variety of vegetation, the edge of its lines, the range of color, the density of texture, its space as defined by the vegetation, and its hierarchy/diversity of scale.

Land Use: Please consider the effect of the project relative to the appearance of identifiable land use(s) in the view and evaluate the degree to which the project is compatible with the appearance of existing land use(s) in the view.

Water: Please consider the effect of the project relative to the appearance of water features in terms of the form of the water body(ies), edges of its (their) lines, clarity of color, texture, which refers here to movement; for space, degree of enclosure around the feature(s); and the scale, or extent of the presence of water in the view.

Sky: Please consider the effect of the project relative to the appearance of the sky in terms of form (including the appearance of clouds), the edges of its lines (perhaps in terms of the horizon), clarity of color, texture, which here could refer cloudiness or other atmospheric conditions, the degree of openness or enclosure, and the scale, or extent of the sky in the view.

Viewer Activity: Please consider the effect of the project on the viewer's perception of the scenic quality and potential viewer enjoyment of the view, taking into account the viewpoint location and context, viewer type, and viewer exposure.

Variable factors that may have influenced rating:

Please note any conditions, based on what is visible in the photographs that, if different, could influence the perceived degree of contrast between the project and the existing features of the landscape (e.g., atmospheric condition, seasonal changes, etc.).

Perceived effect on scenic quality/viewer enjoyment:

Please summarize your evaluation of the project's overall effect on the appearance of the view, taking into account the viewpoint location and context, sensitivity of that location, scenic quality of the existing view, viewer type, and viewer exposure.

Landscape Similarity Zones

Forest

Inset 3.3-1 – Representative Photo of the Forest LSZ from Basswood State Forest in the Town of Oxford (Viewpoint 10)

Inset 3.3-2 – Representative Photo of the Forest LSZ from Whites Hill Road in the Town of Guilford (Viewpoint 55)

Forest is the largest LSZ, covering 61.9% of the visual study area. This zone is characterized by the dominance of mixed deciduous and coniferous tree species, often in association with moderately steep topography. The Forest LSZ is less prevalent within the three major river valleys (Chenango, Unadilla, and Susquehanna Rivers) in the visual study area, where gentler topography creates more opportunities for agricultural, residential, and commercial development. Views within the Forest LSZ are typically limited due to the screening provided by dense vegetation associated with both tree canopy and understory growth. Outward views generally restricted to areas where small clearings and road cuts provide breaks in the tree canopy. Long-distance views from roads within this LSZ are not common, as the sloping topography results in numerous twists and turns in the existing roads that traverse the forested mountainous portions of the study area. Where long distance views are available, they are typically of short duration, limited distance, and tightly framed by trees and adjacent slopes. Land use in this zone includes low-density residential development, logging, and recreational activities such as hiking, hunting, and snowmobiling. Examples of this zone are shown in Inset 3.3-1 and 3.3-2. These forested areas occur on both private lands with limited public access, as well as public lands such as Coventry State Forest, General Jacob Morris State Forest, Hunts Pond State Forest, Lyon Brook State Forest, Pine Hill State Forest, and Wiley Brook State Forest.

Inset 3.3-3 – Representative Photo of the Rural Residential/Agricultural LSZ from Furnace Hill Road in the Town of Guilford (Viewpoint 61)

Inset 3.3-4 – Representative Photo of the Rural Residential/Agricultural LSZ from Tyner Road in the Town of Oxford (Viewpoint 23)

Rural Residential/Agricultural

The Rural Residential/Agricultural LSZ comprises 33.5% of the visual study area and is characterized by open agricultural and successional fields mixed with woodlots and widely spaced farms. Low density residential development within this LSZ consists of older single-family residences located along the road frontage and newer residential construction set back into the landscape. Topography in this LSZ is generally a mix of gently rolling hills and valleys dissected by a network of county and local roads. This zone also includes several more heavily traveled two-lane roads such as State Routes 12, 206, 220, 23, 320, 357, 51, 7, and 8, which in places offer open views of the surrounding landscape. Interstate Route 88 also runs through the Rural Residential/Agricultural LSZ but has a distinctly different visual character and therefore was included within the Transportation Corridor LSZ described below. Dominant activities in the Rural Residential/Agricultural LSZ include typical residential activities, along with farming and local travel. Due to the presence of open farmland in this LSZ, open views tend to be more available than in most other LSZs within the visual study area. These views typically include open fields in the foreground, including scattered homes and farms, backed or bordered by forested hills that define the horizon (see Insets 3.3-3 and 3.3-4). In valley portions of this LSZ, the surrounding hills typically limit long-distance views of landscape features.

Inset 3.3-5 – Representative Photo of the City/Village LSZ from Elm Street in the Village of Gilbertsville (Viewpoint 62)

Inset 3.3-6 – Representative Photo of the City/Village LSZ from West Park Place Road in the City of Norwich (Viewpoint 23)

City/Village

The City/Village LSZ occupies 3.4% of the visual study area and includes the City of Norwich and the Villages of Bainbridge, Gilbertsville, Morris, Otego, Oxford, Sidney, and Unadilla. This landscape similarity zone is characterized by moderate to high-density residential with commercial development situated along an organized street network, and often adjacent to a river or creek. Buildings are typically 1-3 stories tall, and in combination with other man-made infrastructure, are the dominant features of this LSZ. The character of buildings and structures within this zone can be highly variable in design and condition, but the main streets within the City/Village LSZ are typically characterized by limited building setbacks, sidewalks, street lighting and other pedestrian amenities (see Insets 3.3-5 and 3.3-6). In most cases within the visual study area, a bridge across a waterway acts as the gateway to the village. Views into the village and along the river corridor are highlighted and form the initial visual impression. The density of buildings, and their organization along city/village streets, focus views down the open streets and limit the availability of open, long-distance views. In some areas, trees along the gridded street network and within residential yards also tend to enclose and screen views from this zone. However, open street corridors and the edges of the City/Village LSZ, where there is often less dense development, offer more unobstructed views of the surrounding landscape. Because these settlements are in valley settings, long-distance views are also limited by the surrounding ridges, which block views of more distant landscape features.

Inset 3.3-7 – Representative Photo of the Open Water LSZ from North Pond in the Town of Guilford (Viewpoint 46)

Inset 3.3-8 – Representative Photo of the Open Water LSZ from Guilford Lake in the Town of Guilford (Viewpoint 26)

Open Water

The Open Water LSZ occupies 0.7% of the visual study area and is defined by of the presence of open water that provides unobstructed views of the surrounding landscape. Representative views of this LSZ area are shown in Insets 7 and 8. Land use within this LSZ includes year-round and seasonal residences along some of the lake shores, as well as water-based recreation. Within the visual study area, this LSZ occurs along rivers such as the Chenango River, Susquehanna River, and Unadilla River, and lakes and ponds such as Guilford Lake, North Pond, Lake Gerry and Tank Pond. Within the study area, water features have considerable visual importance due to their public use, recreational value, and scenic quality. Public use in this LSZ consists primarily of recreational activities (boating, fishing, swimming) a particularly prominent use at North Pond which hosts Camp Mesorah, situated on the east shore of the Pond. Outward views from these waterbodies typically include a shoreline characterized by a mix of trees and structures (see Inset 3.3-7), backed by more distant ridges that include a mix of open fields, forests and farms. However, due to the forested nature of many portions of the study area, many of the smaller water bodies are enclosed by forest vegetation along the shoreline, which screens outward views and creates a sense of enclosure (see Inset 3.3-8). Additionally, the banks of rivers within this zone are lined with mature trees and brush in most places, which tends to partially or completely obscure views to and from the rivers.

Inset 3.3-9 – Representative Photo of the Transportation LSZ from Interstate Route 88 in the Town of Bainbridge (Viewpoint 1)

Inset 3.3-10 – Representative Photo of the Transportation LSZ from Interstate Route 88 in the Town of Bainbridge (Viewpoint 2)

Transportation Corridor

The Transportation Corridor LSZ occupies approximately 0.5% of the visual study area and includes divided, multi-lane highways with limited access. This includes Interstate Route 88, which transects the southeastern portion of the visual study area. Views along this transportation corridor are dominated by automobiles, pavement, guard rails, and roadway signage, backed by vistas of adjacent forested hills interspersed with small open fields and widely scattered structures. The broad areas of pavement and wide medians that characterize these highways allow for open views of the surrounding landscape. However, viewer attention is generally focused on the roadway and associated traffic. Travel is at high speed, and outward peripheral views are fleeting. The surrounding scenery is variable, but within the study area is dominated by agricultural land and low density rural residential development with forested hills/ridges in the background. Representative views in this LSZ are shown in Insets 3.3-9 and 3.3-10 above.

1.1 Distance Zones

Distance zones are used to divide the visual study area into distinct classifications based on the various levels of landscape detail available to the viewer. Four distinct distance zones were developed for this purpose. EDR consulted several well-established agency protocols, including those produced by the U.S. Forest Service, Bureau of Land Management, and Department of Transportation, in order to determine the appropriate values for each distance zone. It is important to note that each of the protocols consulted for this exercise are not specific to large energy installations located in the northeastern United States. For example, the BLM recommends a combined foreground-middle ground zone extending from zero to five miles. While this is appropriate in a western landscape with frequent, uninhibited views over very long distances, it does not apply well to northeastern landscapes where views can be frequently contained to within one mile of the viewer. The US Forest Service suggests the foreground be defined as an area extending 0.5 mile from the viewer. However, due to the scale of the landscape and the Project, EDR extended the foreground distance zone to more appropriately encompass the visibility of larger scale technology. EDR generally defines the distance zones as follows:

- *Near-Foreground*: 0 to 0.5 mile. At this distance, a viewer is able to perceive details of an object with clarity. Surface textures, small features, and the full intensity and value of color can be seen on foreground objects.

- *Foreground*: 0.5 to 1.5 miles. At this distance, elements in the landscape tend to retain visual prominence, but detailed textures become somewhat muted. Larger scale landscape elements remain as a series of recognizable and distinguishable landscape patterns, colors, and textures.

- *Middle ground*: 1.5 to 4.0 miles. The middle ground is usually the predominant distance at which landscapes are seen. At these distances a viewer can perceive individual structures and trees but not in great detail. This is the zone where the parts of the landscape start to join together; individual hills become a range, individual trees merge into a forest, and buildings appear as simple geometric forms. Colors will be distinguishable but subdued by a bluish cast and a softer tone than those in the foreground. Contrast in texture among landscape elements will also be reduced.

- *Background*: Over 4.0 miles. The background defines the broader regional landscape within which a view occurs. Within this distance zone, the landscape has been simplified; only broad landforms are discernable, and atmospheric conditions often render the landscape an overall bluish color. Texture has generally disappeared and color has flattened, but large patterns of vegetation are discernable. Silhouettes of one land mass set against another and/or the skyline are often the dominant visual characteristics in the background. The background contributes to scenic quality by providing a softened backdrop for foreground and middle ground features, an attractive vista, or a distant focal point.

The amount of land area of each LSZ lying within each Distance Zone within the study area is summarized in Table 3.