



# Supplement to the Application for a Certificate of Environmental Compatibility and Public Need

## Cassadaga Wind Project

Towns of Charlotte, Cherry Creek, Arkwright and Stockton, Chautauqua County, New York

### Respectfully Submitted to:

New York State Board on Electric  
Generation Siting and the Environment  
3 Empire Plaza  
Albany, NY 12223

### Prepared by:

Environmental Design & Research  
Landscape Architecture, Engineering & Environmental Services, D.P.C  
217 Montgomery St., Suite 1000  
Syracuse, New York 13202

**Contact:** Ben Brazell  
P. 315.471.0688

### Applicant:

Cassadaga Wind LLC, a subsidiary of  
EverPower Wind Holdings, Inc.  
1251 Waterfront Place, 3rd Floor  
Pittsburgh, PA 15222



October 2016

**SUPPLEMENT TO THE APPLICATION  
TO THE  
STATE OF NEW YORK BOARD ON ELECTRIC  
GENERATION SITING AND THE ENVIRONMENT**

**FOR A  
CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY & PUBLIC  
NEED  
FOR THE**

**CASSADAGA WIND PROJECT**

Towns of Charlotte, Cherry Creek, Arkwright and Stockton, Chautauqua County, New York

**Case No. 14-F-0490**

**October 2016**

*Applicant:* Cassadaga Wind LLC, a subsidiary of EverPower Wind Holdings, Inc.  
1251 Waterfront Place, 3<sup>rd</sup> Floor  
Pittsburgh, Pennsylvania 15222  
Contact: Bill Spencer, Project Manager  
412.253.9419

*Prepared By:* Environmental Design & Research,  
Landscape Architecture, Engineering & Environmental Services, D.P.C.  
217 Montgomery Street, Suite 1000  
Syracuse, New York 13202  
Contact: Benjamin Brazell, Principal  
315.471.0688

## TABLE OF CONTENTS

GENERAL COMMENTS .....	1
EXHIBIT 2: OVERVIEW AND PUBLIC INVOLVEMENT .....	1
EXHIBIT 3: LOCATION OF FACILITIES.....	2
EXHIBIT 4: LAND USE.....	5
EXHIBIT 6: WIND POWER FACILITIES .....	6
EXHIBIT 9: ALTERNATIVES.....	7
EXHIBIT 11: PRELIMINARY DESIGN DRAWINGS .....	8
EXHIBIT 12: CONSTRUCTION.....	10
EXHIBIT 19: NOISE AND VIBRATION .....	11
EXHIBIT 21: GEOLOGY, SEISMOLOGY AND SOILS.....	12
EXHIBIT 22 - TERRESTRIAL ECOLOGY AND WETLANDS .....	14
EXHIBIT 23: WATER RESOURCES AND AQUATIC ECOLOGY .....	17
EXHIBIT 24: VISUAL IMPACTS.....	18
EXHIBIT 25: EFFECT ON TRANSPORTATION.....	20
EXHIBIT 27: SOCIOECONOMIC EFFECTS.....	22
EXHIBIT 31: LOCAL LAWS.....	23
EXHIBIT 32: STATE LAWS AND REGULATIONS .....	25
EXHIBIT 33: OTHER APPLICATIONS AND FILINGS .....	25
APPENDICES	
Notification of Application.....	26
Appendix KK-Bird and Bat Survey Report.....	27

## LIST OF ATTACHMENTS

Attachment A:	List of Acronyms
Attachment B:	Updated Meeting Log
Attachment C:	Supplemental Figures
Attachment D:	Temporary Batch Plant Preliminary Drawing
Attachment E:	Supplemental Design Drawings
Attachment F:	Typical Permanent Meteorological Tower Drawings
Attachment G:	Sound Monitoring Weather Data
Attachment H:	Sound Receptor and Property Boundary Mapping
Attachment I:	Updating Boring Logs
Attachment J:	Groundwater Flow Map
Attachment K:	Private Well Survey
Attachment L:	Viewshed Overlay Mapping
Attachment M:	Zoning Codes
Attachment N:	Avian and Bat Reports

In response to the July 26, 2016 letter received from the Board on Electric Generation Siting and the Environment (Siting Board) regarding the Application submitted by Cassadaga Wind LLC (Applicant) pursuant to N.Y. Public Service Law (“PSL”) 164 for a Certificate of Environmental Compatibility and Public Need for the Cassadaga Wind Project (Facility), supplemental information is provided below and attached. The organization of this document (hereafter referred to as the “Application Supplement”) is consistent with the Siting Board’s July 26, 2016 letter and presents each comment followed by the Applicant’s response.

## **GENERAL COMMENTS**

1. The Application includes many acronyms which are not defined either at their first use or apparently anywhere in the document. The Applicant should provide a list of acronyms with definitions as an appendix to the Table of Contents.

**Response:** A list of acronyms has been prepared and is included in this Application Supplement as Attachment A. However, this is not requirement of the Article 10 statute or regulations and was not identified in the Stipulations between the parties. As such, the Applicant does not believe this should have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164.

## **EXHIBIT 2: OVERVIEW AND PUBLIC INVOLVEMENT**

1. In accordance with Stipulation 2(c) – 1001.2 Exhibit 2: Overview and Public Involvement, this section should describe specific Public Involvement Program (PIP) Plan components conducted to date. In particular, this section should contain a more detailed description of the stakeholder mailings and the open houses noted in the last line of the first paragraph, e.g., when were they held, how many people attended, what topics were discussed, what issues were raised, etc. At a minimum, this section should refer to the pages in the meeting log where these activities are discussed.

**Response:** This information was provided in the Article 10 Application, specifically in Appendix C (Meeting Log). Given that the meeting log was appended to the Application, the Applicant does not believe this should have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164. However, an updated meeting log is included in this Application Supplement as Attachment B. With respect to recent stakeholder outreach, the Applicant held a public open house at the Pine Valley Veterans Association in Cherry Creek on August 11, 2016 and during this open house the Application submittal was discussed, copies of the Application were on hand for public review, and maps from the Application (e.g., Figure 2-2) were mounted and displayed. Approximately 60 members of the public and stakeholders attended. Approximately 10 questions were asked and there were no negative comments.

2. Stipulation 2(c) – 1001.2 Exhibit 2: Overview and Public Involvement requires the Applicant to identify specific issues that have arisen as a result of the PIP and describe any changes to the proposal that may have resulted. If the proposed Project has not changed, that should be noted as well.

**Response:** No specific issues or concerns have been identified by stakeholders or the public that has resulted in any changes or modification to the Facility.

3. In accordance with Stipulation 2(c) – 1001.2 Exhibit 2: Overview and Public Involvement, the *url* of the website and the toll-free number set up for the Project should be included when mentioning these PIP elements. Also, the Applicant should indicate the timeline to respond to public questions received through these communication tools (DPS Staff recommends 5 days).

**Response:** The Facility website is provided in Exhibit 1 of the Article 10 Application, along with other Applicant contact information. The establishment of a toll-free number is not required by Stipulation 2(c), nor is a requirement to indicate an anticipated response time to public questions. This information is also not required by the regulations. Therefore, the Applicant does not believe this recommendation should have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164. However, the Applicant agrees that this information should be available and the website and toll free number are as follows:

Website: <http://everpower.com/cassadaga-wind-project-ny/>  
Toll Free Number: 1-844-624-WIND (9463)

The Applicant expects to respond to any public questions submitting through the website or toll free number within 5 days of receipt depending on the information required for the response.

4. In accordance with Stipulation 2(c) – 1001.2 Exhibit 2: Overview and Public Involvement, the Applicant should indicate that it will provide updates to the repositories as they become available.

**Response:** Stipulation 2(c) does not require the Applicant to provide updates to the repositories as they become available; therefore, this recommendation should not have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164. However, the Applicant intended to provide updates to the repositories as updates become available. For example, this Application Supplement will be provided to the repositories as an update on the Application.

### **EXHIBIT 3: LOCATION OF FACILITIES**

1. Stipulation 3(a) – 1001.3 Exhibit 3: Location of Facilities requires mapping using “United States Geological Survey (USGS) 1:24,000 topographic quadrangles (updated in 2013 and depicting topography and 10-foot contour intervals) showing [listed details].” The Application is incomplete because the mapping at Figure 3-1 is presented at the approximate scale of 1:63,360 rather than 1:24,000, as stipulated. At the scale provided, the topographic elevation references are not legible. Revised maps must be provided at the scale as stipulated, and road names should be indicated on the figure.

**Response:** The regulations and stipulations require use of USGS 1:24,000 topographic quadrangles, which were used as the base mapping for Figure 3-1 of the Application. The Applicant did not interpret the regulations or stipulations as requiring the scale to be 1:24,000. As indicated on page 1 of Exhibit 3, the Facility is “...mapped on the “USGS Topo” topographic tile cache base map service. This map service combines the most current data (Boundaries, Elevation, Geographic Names, Hydrography, Land Cover, Structures, Transportation, and other themes) that make up The National Map (USGS, 2016). The National Map is a collaborative effort between the USGS and other Federal, State, and local partners to improve and deliver topographic information for the United States (USGS, 2015). The “USGS Topo” map service is designed to provide a seamless view of the data in a geographic information system (GIS) accessible format, and depicts information consistent with the USGS 7.5-minute (1:24,000) quadrangle topographic maps at large scales (USGS, 2016).” Therefore, the Applicant does not believe this should have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164. However, a supplemental figure has been prepared (Figure S3-1) at a scale of 1:24,000 and is included in this Application Supplement as Attachment C.

2. Stipulation 3(a)(1) requires that the figure show “parcels associated with landowners that are hosting Facility components will be indicated, showing the limits of the host parcels in relation to the Facility layout.” The Applicant should explain whether the lines indicating “Facility Site” show the required parcel limits or provide revised property line mapping to satisfy this part. (DPS Staff notes that maps of land parcels are included at Exhibit 13: Real Property. Exhibit 3 may reference the Exhibit 13 mapping exhibit).

**Response:** As stated on page 1 of Exhibit 3, “...the Facility Site is defined as those parcels currently under, or being pursued for lease (or option for lease) with the Applicant for the location of all Facility components. Figure 3-1 depicts the location of all Facility components within the Facility Site...” The Applicant wishes to make clear this sentence with the following:

The Facility Site is defined as those parcels currently under, or being pursued for lease (or option for lease), by the Applicant for the location of all Facility components.

3. Stipulation 3(a)(1) requires that the Facilities Site figure show the following two Alternative turbine layouts:
  - Taller turbines in the same locations as the proposed layout and correspondingly larger setback distances
  - Alternative layout within the Facility area boundary.

The alternative turbine locations indicated within the Facility Site figure (Figure 3- 1: Proposed Major Electric Generating Facility Locations) appear in many locations to be closer to boundaries of the Site, rather than showing “correspondingly larger setback distances.” Other Alternative turbine locations do not show any associated Facility Site or Facility Area boundary, as called for by the stipulation. The Applicant should revise Figure 3-1 or provide additional mapping of the Alternatives to show the relation to Facility Site and Facility Area boundaries.

**Response:** With respect to the taller turbines alternative, the bottom of page 1/top of page 2 of Exhibit 3 states, “...Please also note that as described in Exhibit 9, one of the alternatives being evaluated is the use of taller turbines in the same location as those proposed and evaluated throughout this Application. Therefore, in relation to Figure 3-1, the taller turbines would be in the same location as those depicted with the “wind turbine” symbol.” Larger setback distances are not depicted on Figure 3-1 (no setbacks of any kind are depicted on this figure). However, larger setback distances are discussed in great detail in Exhibit 9 (see pages 17-20 of Exhibit 9).

With respect to the alternative layout within the Facility area, this layout is depicted on Figure 3-1 (note the “Alternative Turbine” symbol on the figure). However, this figure did not depict the Facility Area (as previously depicted in the PSS prepared for the Facility), and therefore has been revised accordingly (see Figure S3-1 included in Attachment C).

4. The Application does not adequately meet the mapping requirements of 16 NYCRR §1001.3(a)(1) and 16 NYCRR §1001.3(a)(2). Ancillary features, both onsite and offsite, are required to be shown on New York State Department of Transportation or USGS maps (1:24,000 topographic edition). Specifically, Figure 3-2 does not identify the location(s) of waste treatment and disposal facilities that will be used during project construction. In addition, according to Page 2 of Exhibit 3, a concrete batch plant will be located somewhere within the Facility’s central laydown area during construction. However, the exact location of the proposed concrete batch plant is not shown on Figure 3-1 and the sources and storage areas of the concrete materials and water for the batch plant are not identified in the Application. Although the Application indicates that GIS shapefile data of the temporary concrete batch plant area was provided, no such data has been provided.

**Response:** Figure 3-1 of the Application shows all Facility components (i.e., wind turbines, permanent meteorological towers, 115 kV generator lead line, underground and overhead collection line, access roads, POI station, collection station, O&M building, and the laydown yard/staging area). Figure 3-2 also depicts all Facility components in addition to off-site ancillary features (i.e., public road improvement locations). Both Figures 3-1 and 3-2 contain the following note: “*if Facility construction requires use of a temporary concrete batch plant, it will be located at the Laydown Yard/Staging Area.*” The exact location and arrangement of the temporary concrete batch plant (if needed) will be determined by the BOP Contractor, who will not be identified until the Facility receives its Certificate. However, a drawing showing the preliminary location and arrangement of the temporary batch plant adjacent to the Laydown/Staging Area for illustrative purposes is included in this Application Supplement as Attachment D.

Please also note that Exhibit 3(a)(3) states, “*Based on all studies and analyses conducted to date, the only off-site ancillary features associated with the Facility are temporary public road improvements. These features are depicted on Figure 3-2.*” Informal consultation with DPS staff resulted in concurrence that the only off-site ancillary features associated with this Facility are public road improvements. Lastly, GIS files of all Facility components have been provided to DPS, which includes a shapefile of the laydown yard/staging area and adjacent O&M location (and per the note on Figures 3-1 and 3-2, this is where the temporary batch plan will be located if needed).

## EXHIBIT 4: LAND USE

1. Stipulation (4)(g) and 16 NYCRR §1001.4(g) require various maps, including those “of designated ... FEMA flood hazard areas.” The Application includes mapping of some Flood Hazard Areas at Figure 4-6, however, the included coverage may be incomplete and should be confirmed. In particular, mapped Special Flood Hazard Area at the northerly extent of Figure 4-6 Sheet 4 of 4 does not extend into the adjoining area mapped at Sheet 2 of 4. Furthermore, review of Flood Hazard Area GIS Q3 mapping available from the NYS GIS Clearinghouse (as cited in Application at Exhibit 4, pg. 20) indicates that flood plain is located along Mill Creek, extending north of Sinclairville to the vicinity of Charlotte Center, generally along the County Route 49 corridor, including the location of the proposed 115 kV Generator Lead Line; and also two areas of Flood Hazard Zone located along Cassadaga Creek, north of Moon Road, including crossing the Facility Site as it extends north of the Moon Substation along the existing NMPC Dunkirk-Falconer 115 kV line. (Note: This location of facilities within areas of flood hazard is described at Application Exhibit 9, page 9 under section (9) *Vulnerability to Seismic Disturbances and Climate Change Impacts*; and at Application Exhibit 31, pg. 36 in section (j) *Zoning Designation*.) DPS advises that the Applicant should revise the maps to correctly indicate the presence of any flood hazard zones. (See Map attached as Appendix 1.)

**Response:** A supplemental figure has been prepared (Figure S4-6) to include the requested information, and is provided with this Application Supplement in Attachment C.

2. Stipulation 4(h) requires:

Maps of all ... designated trails ... oil and gas production and any known pipeline transportation, major communication and utility uses and infrastructure ... and a summary describing the nature of the probable environmental impact of the Facility and interconnection construction and operation of such uses, including an identification of how such impact is avoided or, if unavoidable, minimized or mitigated.

Facility Site mapping does not demonstrate the location and relationship of specific Facility components such as turbine locations, access roads and electric collection and transmission interconnect lines, to existing utility uses and infrastructure, such as gas wells and pipelines, which are mapped on separate figures only. Likewise, the Application does not describe the nature of impacts of Facility location and design on such infrastructure and uses, and also does not identify how impacts on utility uses and infrastructure is avoided, minimized or mitigated. Furthermore, while the designated Cassadaga Water Trail is mapped as crossing the Facility Site at Figure 4-7, there is no description or indication of the nature of impact or avoidance, minimization or mitigation measures proposed. In accordance with the regulations and stipulations, the Application must contain such land use information.

**Response:** Neither the regulations nor the stipulations for Exhibit 4 require the Facility to be included on the indicated maps. Rather, the regulations and stipulations require maps showing “...*recreation areas and other sensitive land uses...*” and a “...*summary describing the nature of the probably impact of the Facility...*” The Applicant reasonably interpreted the requirement for a “summary” as a narrative requirement, and accordingly, provided this description in Exhibit 4. Therefore, from a mapping

perspective the Applicant does not believe this should have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164. However, the Applicant agrees to provide the requested information on a supplemental figure (Figure S4-7) that now includes the Facility components, and is included in this Application Supplement in Attachment C.

With respect to describing the nature of the impacts, page 22 of Exhibit 4 states, “*The Facility will have no direct impact on the vast majority of recreational resources and other sensitive areas identified in Figure 4-7 (i.e., they will not be removed or physically modified in any way). The only exception is a 1.2-mile section of 34.5 kV overhead collection line that will traverse Boutwell Hill State Forest. In order to mitigate tree cutting and potential visual impacts along this 1.2 mile section, this collection line will be installed immediately adjacent to public roadways, specifically along the north sides of Mill Creek and Boutwell Hill Roads. An equestrian trail and the Cherry Creek Snowmobile Trail currently run north-south through this portion of the State Forest, crossing Mill Creek Road, and the Earl Cardot Eastside Overland Trail also generally runs north-south through this area, with a trailhead/parking lot located at the crossing of Boutwell Hill Road. No poles supporting the collection line will be installed within the trail corridors. However, each of these trails will pass beneath the overhead collection line immediately north of the existing public road crossings. For the remainder of the recreational resources and other sensitive areas identified in Figure 4-7, the Facility’s potential effect on these resources could include a change in the property’s visual setting, resulting from the introduction of wind turbines. The VIA includes an analysis of Facility visibility, which identifies those locations within the visual study area where there is potential for the proposed wind turbines to be seen from ground-level vantage points. Topography and vegetation will serve to block daytime views of the Facility from approximately 66.6% of the five-mile study area and approximately 78.3% of the ten-mile study area (i.e., 41.4% and 21.7% of the study areas, respectively, are indicated as having potential Facility visibility). Appendix C of the VIA consists of a visibility analysis of the sensitive sites. The analysis presents the distance to the nearest turbine for each visually sensitive resource, along with results from the topographic and vegetation viewsheds, and identifies photographs taken from recreation sites and other sensitive areas during the field review. For more information about the anticipated visual impacts of the Facility and mitigation measures, see Exhibit 24 of this Application.*” This description satisfies the requirements of the Stipulation and should not be identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164.

With respect to the Cassadaga Water Trail, as indicated in supplemental Figure S4-7, although this water feature crosses the Facility Site, it is well north (greater than 1 mile) of all Facility components. The Applicant will only be siting the POI substation in the extreme southern portion of the parcel that the water trail crosses.

## **EXHIBIT 6: WIND POWER FACILITIES**

1. The Application notes on page 6 of Exhibit 6 that, “[t]he Facility as currently proposed will meet or exceed all turbine setback requirements, or written consent will be obtained from

affected property owners. For example, turbine site T42 is located within a gas well setback, and the Applicant is obtaining permission from the property owner and well owner to be within that setback.” Per 16 NYCRR §1001.6(b), provide a description of all potential cases of turbine locations that may require the written consent from property owners due to setback adherence issues. Include the proposed turbine setback distances from the related features or structures.

**Response:** The number of instances where the Applicant will obtain landowner agreements to accommodate setbacks is discussed in Exhibit 9. Specifically, page 19 of Exhibit 9 states, *“In order to comply with the Applicant’s setbacks, the landowners of any parcel within 1.1x total turbine height of a proposed turbine site must be project participants (i.e., they must have signed a landowner agreement, easement, setback waiver, or Good Neighbor Agreement). As shown above in Table 9-3, this means the landowners of all parcels located within 550 feet of a proposed Facility turbine... must be project participants. In order to comply with the setback to non-participating parcels for the proposed Facility, the Applicant will sign landowner agreements allowing the use of 71 parcels... To comply with the setback to non-participating residence, the owners of any residential structure within 3x total turbine height of a turbine site must be project participants (i.e., they must have signed a landowner agreement, easement, setback waiver, or Good Neighbor Agreement). As shown above in Table 9-3, this means the owners of all residential structures located within 1,500 feet of a proposed Facility turbine... must be project participants. In order to comply with the setback to non-participating residences for the proposed Facility, the Applicant will sign agreements with the owners of the 25 residences within 1,500 feet of a turbine site (making them project participants).”*

The Applicant notes that many of these agreements are currently in place, and following issuance of the Certificate, the Applicant intends to provide documentation demonstrating all necessary agreements are in place as a pre-construction compliance filing.

## **EXHIBIT 9: ALTERNATIVES**

1. The Application does not present a clear description of the alternative turbine locations mapped at Figure 3-1, or otherwise. The Applicant should indicate whether these are showing the locations of additional turbines for the hypothetical “75-Turbine Alternative,” as described in Exhibit 9.

**Response:** Page 20 of Exhibit 9 (under the 75-Turbine Alternative heading) states, *“This alternative explores the option of utilizing 75 proposed turbine sites instead of 58, using the same range of turbine models under consideration for the proposed Facility. Some of the turbine sites in the 75-Turbine Alternative are located in the same general areas as proposed Facility turbine sites (due to the availability of wind resources), while others are located along completely different ridgelines. Table 9-4 identifies the position of the 75-Turbine Alternative turbine sites. See also Figure 3-1.”* Per the quoted Application language, reference to Figure 3-1 is directly related to the 75-turbine alternative. The Applicant wishes to clarify that the “Alternative Turbine” symbol (the green dot) on Figure 3-1 (and Figure S3-1) represents the 75-Turbine Alternative.

## EXHIBIT 11: PRELIMINARY DESIGN DRAWINGS

1. In accordance with Stipulation 11(a) the Applicant should provide paper copies of three of the Preliminary Design Drawings (site plans at Application Appendix L) at a scale of 1"=100'. It appears that the plan set was developed and drawn at the appropriate scale but the hard copy submission contains reduced scale drawings.

**Response:** Stipulation 11(a) does not require "three paper copies" of the Preliminary Design Drawings. However, a full-size drawing set was plotted and provided to DPS in addition to the printed copies of the Application. In addition, each printed copy of the Application contains as Appendix M (the comment incorrectly references Appendix L as the location of these drawings) a complete set of the Preliminary Design Drawings printed at size of 11"x17". To be clear, these are reduced size drawings not reduced scale drawings. The scale on the 11"x17" drawings is accurate in relation to this paper size.

2. As per Stipulation 11(a), the Applicant should provide revised Preliminary Design Drawings and site plans providing location of additional facilities components including permanent meteorological towers and any associated access roads.

**Response:** The two permanent meteorological towers are depicted on the index sheets of the Preliminary Design Drawings (i.e., Sheet NW-100 and SW-100). These index sheets provide an overview of the meteorological tower locations in relation to other Facility components, parcel boundaries, and public roads. However, supplemental drawings (NW-114 and SW-113) have been prepared that depict the two permanent meteorological tower locations, along with corresponding revisions to index sheets NW-100 and SW-100, and these drawings are included in this Application Supplement as Attachment E.

As depicted on Sheets NW-114 and SW-113, there will not be any permanent access roads to the meteorological towers, rather these will be accessed as needed by driving over the existing ground surface, avoiding sensitive environmental features as needed.

3. Stipulation 11(a) requires that, "the Application will provide additional information on the need for an on-site concrete plant, including a typical plan layout showing all components of this feature and an approximate location." Although photos of typical machinery utilized for such a plant are enclosed as Appendix O, there is no plan showing the location of this area designated as a temporary concrete batch plant within the staging area off Cleland Road.
  - a) Provide an outline of the area to be used as the temporary batch plant; and
  - b) If it will be a "wet" plant, provide the information regarding the water source.

**Response:** Figure 3-1 shows all Facility components (i.e., wind turbines, permanent meteorological towers, 115 kV generator lead line, underground and overhead collection line, access roads, POI station, collection station, O&M building, and the laydown yard/staging area). Figures 3-1 also contains the following note: "*if Facility construction requires use of a temporary concrete batch plant, it will be located at the Laydown Yard/Staging Area.*" Page 1 of Exhibit 11 further states, "*With respect to an on-site concrete batch plan, the Applicant currently anticipates this feature will be*

*located at the centrally located construction staging area off Cleland Road, and general information about this temporary feature is included in Appendix O. However, it may be necessary for the Applicant to obtain concrete from local or regional suppliers either in addition to the on-site concrete batch plant or solely source the concrete using offsite suppliers.”*

The exact location and arrangement of the temporary concrete batch plan (if needed) will be determined by the BOP Contractor, who will not be identified until the Facility receives its Certificate. However, a drawing showing the preliminary location of the temporary batch plant adjacent to the Laydown/Staging Area for illustrative purposes is included in this Application Supplement as Attachment D.

Water will be likely be sourced through a well dug at the batch plant site or water will be hauled in by tankers to a water tank installed at the temporary batch plant site. The final method will be determined by the BOP contractor and thus not known until just prior to construction. The BOP will be responsible for specifications and any approvals necessary.

4. Stipulation 11(a) also notes: “[i]f an on-site plant will not be utilized, then potential options for concrete will be discussed and an estimate of the number of concrete mixing transport trucks required per day will be provided.” This information is not included in the Application.
  - a) Provide a discussion of potential options for concrete and the estimated number of concrete mixing transport trucks required per day (regardless of the source).

**Response:** There are concrete suppliers within a 25 mile radius of the Facility Site that can be used. One or a combination of these suppliers will be used if an on-site concrete batch plant is not utilized. If off-site concrete suppliers are necessary, it is anticipated that approximately 12 trucks representing approximately 120 truck trips per day (includes round-trip) would be required during turbine foundation pour days (over the course of approximately 30 construction days).

5. According to Stipulation 11(b), Exhibit 11 shall contain “[a] construction operations plan of the location of anticipated construction staging/material laydown areas, work spaces, temporary concrete batch plant(s), contractor trailers/offices, ingress, egress, and parking areas along with notable excavation areas and soil stockpile areas.” Page 1 of Exhibit 11 of the Application states that “[e]xcess soil will be stockpiled along the construction corridors and used in site restoration.” However, no detail was included describing areas to be used for storing imported materials (fill, etc.).
  - a) Describe the locations to be used as imported material storage areas, if any.

**Response:** Other than gravel, which the Applicant anticipates will be delivered directly to the location where it will be used (e.g., portions of various access roads), no fill will be imported. To clarify, although this is not explicitly stated in Exhibit 11, this is stated on page 1 of Exhibit 21: “*With the exception of gravel, fill material will be derived from excavated material, and no fill will need to be imported for construction of the Facility.*” Therefore, the Applicant does not believe this should have been identified

as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164.

6. According to 16 NYCRR §1001.11(f), architectural drawings shall include exterior elevations for all buildings and structures. Elevations of turbines and permanent meteorological towers are not included in the Application. Provide a response and include typical elevations (showing height) for permanent meteorological towers and each wind turbine being considered.

**Response:** It should first be noted that this comment is inconsistent with Stipulation 11(f), which only requires “*A typical drawing of an O&M building and typical foundation types to be used for the wind turbines. In addition, typical details of other structures or buildings, such as at the collection and interconnection substations will be included.*” All information required by this stipulation was provided with the Application. With respect to elevations of turbines, this information was provided in the Application. Specifically, Appendix K of the Application includes brochures for the turbines under consideration, and these brochures provide details associated with turbine heights, etc. With respect to permanent meteorological towers, a drawing showing typical elevations (height) has been prepared and is included with this Supplemental Application as Attachment F.

7. Exhibit 11 – 1001.11(i) on page 5 of Exhibit 11 of the Application, the Uniform Building Code (UBC) is listed as one of the Engineering Codes, Standards, Guidelines and Practices to be considered during the design, construction, operation and maintenance of this Facility. Staff advises that the Applicant should remove the reference to the UBC and insert the current *New York State Fire Prevention and Building Code* and current *New York State Energy Code* instead.

**Response:** Comment noted; however, the Applicant does not believe this required the Siting Board to find that the Application does not comply with PSL 164. This Application Supplement is hereby removing the reference to the UBC and replacing with the current *New York State Fire Prevention and Building Code* and current *New York State Energy Code*.

## **EXHIBIT 12: CONSTRUCTION**

1. Stipulation 12(a) requires “[a] preliminary Quality Assurance and Control plan including special inspections (structural) and statements of special inspections required by the Building Code of New York State.” The Application does not specifically address special inspections or statements of special instructions required by the Building Code of New York State.

**Response:** The current version of the New York State Uniform Fire Prevention and Building Code and Energy Conservation Construction Code of New York State will be reviewed by the BOP contractor prior to developing the final Quality Assurance and Control Plan to identify any applicable special inspections requirements or statements. Any such special inspections requirements will be described in the Applicant’s final QA/QC plan.

## EXHIBIT 19: NOISE AND VIBRATION

1. Exhibit 19(b), pages 3 to 5 in the Application (Ambient Pre-construction Baseline Noise Conditions) and sections 6.2 and 6.3, pages 51 and 53 in the PNIA (Preconstruction Noise Impact Analysis, Appendix Z.1) report which weather data was collected at different locations within the Facility Site. In addition, measured sound levels were graphed in conjunction with wind gusts (m/s) in section 8.0 of the PNIA. However, exclusions due to rain are reported but rainfall is not documented. Air temperature is only reported for periods of infrasound collections. Criteria for exclusion based upon relative humidity is described but actual values of relative humidity during sound surveys are not reported. Wind direction is not described or reported. As required by Stipulation 19(b), the Application should describe all weather conditions during ambient and infrasound collections. Include graphic or tabular summaries of supporting information (e.g., wind speed, wind direction, temperature, relative humidity and precipitation).

**Response:** Wind speed at each monitoring location was included in Section 8 of the Preconstruction Noise Impact Assessment provided as Appendix Z to the Application. Additional information regarding wind direction, temperature, relative humidity, and rainfall for all days during which sound monitoring took place is included in this Application Supplement as Attachment G.

2. Stipulation 19(e)(2) requires “a tonal evaluation based on the reported sound power of the turbines and substation transformers.” Section (2) of Exhibit 19 includes tonal evaluation of Wind turbine Gamesa G114 2.625 MW only. However, Table 2 of the PNIA (Pg. 9) lists fourteen different turbine models considered for the Project. The absence of prominent tones for the turbine model with the greatest sound power levels does not exclude the possibility that other models may have or cause prominent tones. Local laws have 5 dBA penalty provisions for the presence of prominent tones from the turbines. As required by Stipulation 19(e)(2), include the evaluation of prominent tones for all the turbine models that may potentially be selected for the Project.

**Response:** The Applicant does not have all the data needed from turbine manufacturers to perform tonal analysis on each turbine model and believes the Gamesa G114 2.625 is representative of the tonal levels of typical wind turbines being evaluated for the Facility. Further, tonal audibility is not an issue for the turbines under consideration for this Facility since the respective turbine manufacturers do not develop turbines that have prominent tones that exceed the accepted tonal prominence standards. The Applicant will commit to the turbine model ultimately selected for the Facility not exceeding ANSI Standard 12.9 Part 4 for tonal prominence or tonal audibility greater than 3 dB according to IEC 61400-14.

3. Stipulation 19(f) requires “[a] summary, in tabular and/or graphical format, of A- weighted sound levels indicated by measurements and computer noise modeling at the representative external property boundaries of the Facility, and at the representative nearest and average sensitive sound receptors.” Figures 119 to 122 of the PNIA (appendix B, pp 155 to 158) report sound contours for the project site in one dBA steps at illegible scale. Receptors are not labeled and parcel lines for non-participating lots are either not included or are at an illegible scale. The Application should include properly scaled legible drawings for figures 119 to 122

including parcel/property lines depicted. Full-size drawings are recommended. Identify (label) receptors in the drawings.

**Response:** Additional mapping has been prepared to provide the requested information and is included in this Application Supplement as Attachment H.

4. Stipulation 19(n) requires “GIS files that contain modeled topography, proposed turbine and substation noise source locations, sensitive sound receptors, and all representative external boundary lines, identified by Parcel ID number, will be provided to DPS-Staff in digital format.” Exhibit 19 of the Application states that these files “are being provided to DPS under separate cover in digital format.” GIS files as required by Stipulation 19(n) have not been provided. Although GIS files with proposed turbine, alternatives and substation locations were provided, the Applicant should confirm whether any of those files correspond to the ones that were incorporated into the computer noise model. If the files are different, the Applicant should provide digital copies of the files that were used.

**Response:** The requested GIS files are being provided under separate cover.

## **EXHIBIT 21: GEOLOGY, SEISMOLOGY AND SOILS**

1. The Application does not provide drawings delineating anticipated cut and fill storage areas as required per 16 NYCRR §1001.21(g) and Stipulation 21(c).

**Response:** Because of the preliminary nature of the Preliminary Design Drawings (e.g., publicly available 5-foot contours interpolated to 2-foot contours), final/definitive cut and fill calculations/storage areas cannot be determined at this time. Exhibit 21(g) describes the various scenarios where cut and fill activities will take place, and also states that the cut and fill storage areas will be available following Certification, and included in the construction drawings filed as compliance filings. It is known that during construction, excess cut material will be temporarily stored along the edge of the associated access road for use as fill in a nearby location, or to be spread during final restoration. Sheet C-601 of the Preliminary Design Drawings has been revised to include an updated access road typical detail, which depicts temporary soil storage stockpile, and is included in this Application Supplement as Attachment E.

2. According to Exhibit 21 of the Application, construction excavations may encounter areas of perched groundwater, particularly during periods of seasonally high water table and heavy rain events. No discussion is provided describing temporary dewatering practices in such areas and the Application does not indicate whether permanent dewatering may be required during operation of the facility, as required per 16 NYCRR §1001.21(p).

**Response:** This comment is inaccurate. Page 5 of Exhibit 21 states, “*If necessary, dewatering of foundation excavations will involve pumping the water to a discharge point, which will include measures/devices to slow water velocities and trap any suspended sediment. Dewatering activities will not result in the direct discharge of water into any streams or wetlands, and will be conducted in accordance with the SWPPP.*” Therefore, the Applicant does not believe this should have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164.

With respect to permanent dewatering, based on all information and studies collected to date the Applicant does not anticipate this will be necessary. However, final geotechnical investigations will be conducted at each turbine location following Certification of the Facility, and the Applicant anticipates providing the results of such investigations, along with foundation design details for each turbine (including drainage considerations that will be addressed as part of the foundation design) as a post-Certification compliance filing.

3. Exhibit 21 of the Application does not include vertical profiles showing soils, bedrock, average water table, seasonally high groundwater and typical foundation depth, as required per 16 NYCRR 1001.21(q) and Stipulation 21(q). The Applicants should provide vertical profiles with the required information for each of the soil boring locations indicated in the Preliminary Geotechnical Investigation Report.

**Response:** This comment is inaccurate. Exhibit 21 includes multiple references to the geotechnical study prepared by GZA, and summarizes portions of this study. Page 19 of Exhibit 21 provides a summary of the borings and states, “GZA completed a preliminary subsurface investigation, which included subsurface soil and bedrock sampling and geotechnical laboratory testing, at six proposed turbine locations and two proposed electrical substation locations within the Facility Site (see Appendix II)... Moderately to severely weathered sedimentary bedrock (shale and/or siltstone) was encountered within 10 feet bgs at three soil boring locations for proposed turbines. At the remaining soil borings locations for proposed turbines, evidence of severely weathered bedrock was observed at depths typically greater than 30 feet bgs.” Specific to vertical profiles, Appendix II of the Application includes the Preliminary Geotechnical Evaluation report, and boring logs are included in Attachment C to the geotechnical report. The boring logs provide the vertical profile of the subsurface conditions at each boring location. However, the boring logs have been updated to provide additional information regarding water tables (to the extent available), and are included in this Application Supplement in Attachment I. Please note that information pertaining to average water table measurements for the respective soils is not addressed in the Soil Survey (or other reviewed documents) and therefore not readily available for inclusion or reference on the boring logs.

4. Exhibit 21(f)(3) on page 4 concerning site preparation for construction, states that a 40-foot wide clearing corridor will be utilized for buried electric. Sheet C-602 shows a buried electric detail utilizing a 50-foot “limit of disturbance.” Note #2 for this detail indicates the clearing limits will be the limit of disturbance. The Applicant should correct the discrepancy between the 40- or 50-foot clearing width.

**Response:** Sheet C-602 incorrectly identifies a 50-foot limit of disturbance, and has been corrected (see Attachment E).

5. The Application does not provide an estimate of the length of HDD or other trenchless methods of electric collector line installation as required by Stipulation 21(f).

**Response:** HDD locations are depicted on Figure 22-2; however, an estimated length for each is not explicitly listed in the narrative of Exhibit 21. Therefore, this information is provided below:

HDD Crossing	Figure 22-2 Sheet #	Wetland/Stream to be crossed (delineated ID)	Wetland/Stream Cover Type	Length (ft)
1	1	N	PFO/PSS	234
2	1	O	PFO/PSS	490
3	4	5H	Perennial Stream	352
4	4	TTT	Perennial Stream	192

## EXHIBIT 22 - TERRESTRIAL ECOLOGY AND WETLANDS

1. Provide GIS files used in wetland delineation figures 22-2.

**Response:** The Applicant is providing the requested GIS files under separate cover. However, neither the regulations nor the stipulations require providing these files. Therefore, the Applicant does not believe this should have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164.

2. Stipulation 22(b)(5) requires “details of cleaning procedures for removing invasive species from equipment and personnel, and properly disposing of materials.” Review of the Application, including Appendix FF Invasive Species Control Plan (ISCP), indicates that no cleaning procedures are identified. The Applicant should provide the required information.

**Response:** This comment is inaccurate. Page 5 of the ISCP includes a discussion specifically addressing “Construction Equipment Sanitation”. Therefore, the Applicant does not believe this should have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164. However, the following additional information is provided:

Equipment will arrive on the site in a clean condition, without visible soil clumps or plant material. The contractors will inspect and clean vehicles and equipment of any visible soils, vegetation, or other debris before entering the Facility construction area. Once on-site, equipment will be cleaned before moving from an area known to be infested with invasive species. Cleaning of the equipment used within areas infested with invasive species should be conducted within or adjacent to the infested area. Equipment will not be cleaned in or near waterways or wetland resources. Preferred methods of cleaning equipment include the use of shovels, brooms (including skid steer sweepers), and high pressure air. While high pressure water is an option, additional water quality measures such as designated wash stations would be required to prevent the potential of sediment discharges. As equipment is cleaned within an infested area, all material removed during cleaning will remain within the infested area. If invasive species must be cut or uprooted during construction, the material will either remain within the same construction area that is infested or be disposed of offsite. If disposed of offsite, the plant and soil material will be transported in a secure manner to a landfill

incinerator or an approved disposal site. All personal should inspect their clothing and footwear closely for sediment and vegetation. If identified, sediment and vegetation should be removed from personal clothing by hand or with the help of brushes and rags.

3. Stipulation 22(b)(7) requires a “[d]escription of the Best Management Practices or procedures that will be implemented, and the education measures that will be used to educate workers.” The Application fails to provide a description of the education methods to be utilized.

**Response:** This comment is inaccurate. Page 4 of the ISCP states, “*The ISCP will be appended to the construction contract, requiring the BOP Contractor to implement the control measures outlined in this section. A central theme of the ISCP will be educating construction workers about invasive species and how to prevent their spread. This education will be accomplished through the various contractor-training sessions provided by the Environmental Monitor, which will occur as part of the Facility’s Environmental Compliance and Monitoring Program.*” In addition, page 71 and 72 of Exhibit 22 provide details associated with the Environmental Compliance and Monitoring Program (including contractor training). Therefore, the Applicant does not believe this should have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164. However, please note that the Applicant recognizes the importance of contractor education with respect to environmental protections, including invasive species. To that end, the Applicant intends on engaging the Environmental Monitor to prepare an Environmental Compliance Manual (post-Certification) that will be provided to all contractors for their reference and use during construction, and this manual will include, among other items, the final Invasive Species Control Plan. In addition, the Applicant will also hold at least one mandatory contractor training session, and during this training the Environmental Monitor will give a presentation that summarizes the content of the Environmental Compliance Manual and an overview of all applicable plans and information on their implementation and compliance requirements. If new contractors start working on the project following this training, they will be required to receive “tailgate” Environmental Compliance training prior to initiating work. The final Environmental Compliance Manual, which will serve as the basis for the contractor training, will be provided to the Siting Board as a post-Certification compliance filing.

4. DEC Advises that consistent with 6 NYCRR Part 182 (Part 182) and Stipulation 22(g) describing Facility design to avoid and mitigate impacts, the application must be augmented to demonstrate how the Applicant will avoid or minimize impacts to Northern long-eared bats (NLEB). NLEB are listed as “threatened” by the US Fish and Wildlife Service (US FWS) and DEC. DEC staff has determined that all wind projects have the potential to take NLEB while operating. This is based on an analysis of post-construction monitoring data from ten projects in the Northeast region which has demonstrated take of NLEB from the operation of wind rejects. Construction impacts should be considered separately from impacts associated with operation, and may be avoided by limiting tree clearing to winter dates. If a take cannot be avoided then the Application must demonstrate that the project will have a ‘net conservation benefit’ or no net loss. To demonstrate compliance with Part 182 the Article 10 application must include:

- a) Calculation of Take - The Application should include a calculation of the likely take of NLEB from construction and operation of the project. This is consistent with 22h(2), specifying an impact analysis to determine impacts to the NLEB.
- b) Minimization - The Application must propose and discuss which impact minimization measures will be implemented, including but not limited to, the use of turbine cut-in speeds that are practicable and will provide significant protection to the NLEB. It should include provision to develop an impact minimization plan in consultation with DPS, DEC and USFWS that describes use of turbine cut-in speeds above manufacturer recommended speeds during certain times and under certain environmental conditions, as well as any other proposed measures.
- c) Mitigation - Based on minimization measures proposed by the Applicant, a determination can be made, in consultation with DEC staff to determine if a take of NLEB is likely. One or more conservation measures will also be necessary to mitigate for the calculated loss of NLEB as a result of project construction and operation. Mitigation measures will be developed in consultation with DPS, DEC and USFWS. Please see also Appendix A of DEC's *"Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects"*

**Response:** A memorandum has been prepared by the Applicant's avian/bat consultant to address this comment, which is being provided under separate cover.

- 5. As written in the Application, the Applicant plans to implement a voluntary operational Best Management Plan (BMP) that could reduce bat mortality and the Applicant plans to conduct post-construction monitoring for avian and bat impacts (per Stipulation 22h.(3) for assessing impacts).

**Response:** Comment noted; however, this comment is not related to a deficiency of the Application and no additional information is required to comply with PSL 164.

- 6. Stipulation 22(n) requires a discussion of the number of environmental monitors that will be utilized and the necessary qualifications. The Applicant should provide the information as required by the Stipulation.

**Response:** This comment is inaccurate. Stipulation 22(n) requires *"This section of the Application will also describe the anticipated Environmental Compliance and Monitoring Program to be implemented during Facility construction to adhere to various permit conditions and protect sensitive environmental resources such as wetlands, streams, and wildlife habitats. The Facility's Environmental Compliance and Monitoring Program will include an Environmental Monitor(s) and the duties of the monitor will also be described in this section of the Application."* Clearly, this stipulation requires a description of the duties of the monitor(s), which is described in Exhibit 22(n). It is also clear that the stipulation does not require the identification of the number of monitors or the monitor's qualifications. Therefore, the Applicant does not believe this should have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164.

## EXHIBIT 23: WATER RESOURCES AND AQUATIC ECOLOGY

1. Figure 23-2 does not provide all of the information required per 16 NYCRR §1001.23(a)(2). Groundwater flow direction and groundwater quality are not indicated, the locations of private water supply wells are not identified, and wellhead protection zones are not delineated.

**Response:** It was the Applicant's understanding that due to the nature of the project (i.e., a wind power project spread out over a rural and relatively large geographic area) that the requirements of §1001.23(a)(2) were refined by the language agreed to by the parties in Stipulation 23(a)(2). However, a general groundwater flow map has been prepared and is included with this Application Supplement in Attachment J. With respect to private water supply wells, the Applicant sent out private well surveys to all property owners within a 1-mile radius of the Facility, and the completed surveys are included in the Application as Appendix SS. With respect to groundwater quality, the Applicant is providing the following additional information:

Groundwater quality is monitored throughout New York State through the 305(b) groundwater quality monitoring program. The program is a collaboration between the NYSDEC and the USGS, with the goal of quantifying and reporting on ambient groundwater quality from bedrock and glacial-drift aquifers in the State. As a part of the program, waterwells (both public and private) are sampled from within each of the 14 major hydrologic basins around the State. The Facility is located in the Allegheny River Basin, which was sampled along with the rest of western New York in 2006 and 2011. Of the 33 waterwells sampled in 2006, one well (CU1951) is located within the Facility Site (see Figure S23-2 in Attachment J). Of the 31 waterwells sampled in 2011, none were within the Facility Site, although well CU 865 is approximately 2 miles to the south of the Facility Site (see Figure S23-2 in Attachment J). The results of each year of groundwater sampling were summarized in USGS reports (Eckhardt et al. 2008, Reddy 2013). Both the 2006 and 2011 Western New York Groundwater Sampling reports found that groundwater quality was generally acceptable throughout the sampling area (Eckhardt et al. 2008, Reddy 2013). However, some constituents or bacteria exceeded at least one drinking-water standard at 27 of the 33 wells sampled in western New York in 2006 (Eckhardt et al. 2008). In 2011, 30 of 31 wells sampled contained at least one constituent that exceeded federal and state drinking water standards (Reddy 2013). In addition, the private waterwell survey that was sent to landowners in the vicinity of the Facility in December 2015 included some questions regarding groundwater quality. The majority of survey respondents reported having hard water that is clear and potable. Those respondents that reported that their wellwater had been previously tested indicated no issues with contaminants.

### References:

Eckhardt, D.A.V., Reddy, J.E., and Tamulonis, K.L., 2008, Ground-water quality in western New York, 2006: U.S. Geological Survey Open-File Report 2008-1140, 36 p., available online at <http://pubs.usgs.gov/ofr/2008/1140>

Reddy, J.E., 2013, Groundwater quality in western New York, 2011: U.S. Geological Survey. Open-File Report 2013-1095, 28 p., at <http://pubs.usgs.gov/of/2013/1095/>

2. The Application does not include GIS parcel data showing the locations of private water supply wells, as required per Stipulation 23(a)(2).

**Response:** Stipulation 23(a)(2) does not require the Applicant to provide GIS parcel data. Rather, this stipulation requires “...a corresponding GIS parcel map.” This map was included in Appendix SS of the Article 10 Application, and is also included in Attachment K. With respect to the results of the waterwell survey, please see response to Exhibit 23, Comment 1 above.

3. The Application does not identify anticipated areas of dewatering during construction, as required by Stipulation 23(a)(3).

**Response:** Exact areas of dewatering cannot be known at this time. Based on the soils information, dewatering is not anticipated to be necessary. However, page 15 of Exhibit 23 indicates that dewatering could be encountered at foundation excavation locations: “*In the event that shallow groundwater is encountered during construction activities such as foundation excavation, dewatering likely occur. If dewatering is required, a temporary pit (or sediment trap) will be constructed in upland areas (i.e., not within streams or wetlands) to trap and filter water prior to discharging it to a stable discharge area. Dewatering will involve pumping accumulated water to a device (e.g., sediment filter bag, silt fence barrier) that decreases discharge velocity and traps suspended sediment prior to outletting to undisturbed ground. The stable outlet must be capable of filtering further sediment and withstanding the velocity of the discharged water to prevent erosion. Typical details are included in Exhibit 11.*”

In addition, page 5 of Exhibit 21 states, “*If necessary, dewatering of foundation excavations will involve pumping the water to a discharge point, which will include measures/devices to slow water velocities and trap any suspended sediment. Dewatering activities will not result in the direct discharge of water into any streams or wetlands, and will be conducted in accordance with the SWPPP.*”

Therefore, the Applicant does not believe this should have been identified as a deficiency of the Application. With respect to permanent dewatering, please see response to Comment 2 on Exhibit 21 above. It should be noted that any analysis of long-term dewatering would only be speculation based on currently available information. The determination of long-term dewatering will be addressed during the final geotechnical investigation to be conducted at each turbine location following Certification.

## **EXHIBIT 24: VISUAL IMPACTS**

1. Requirements of Stipulation 24 regarding facility visibility predictions include presentation of information in an integrated and related manner that is not provided in the Application. Stipulation 24 (b)(1) requires viewshed maps that are “presented on the most recent edition 1:24,000 scale topographic base map, and in addition to the results of the viewshed analysis, the maps will also depict visually sensitive sites, viewpoint locations, and Landscape Similarity Zones.” The viewshed mapping provided in the Application at Exhibit 24 is USGS hillshade projection on ESRI Streetmap, not topographic edition basemap; is provided at approximate scale of 1:181,025 rather than 1:24,000; and does not depict visually sensitive sites, viewpoint

locations and Landscape Similarity Zones. DPS Staff advises that different Viewshed Overlay mapping (Sheets 1 through 5 of 5) is provided at Volume V, exclusively on CD-ROM files in Appendix A to Appendix VV. This mapping more fully represents the information in an integrated manner as required by the Stipulation for Exhibit 24. The Applicant will be required to provide five full-size, large format paper copies of this set of mapping to DPS Staff; and also one set of such mapping to any party requesting service of such documents.

**Response:** Based on recent consultations with DPS Staff, a single copy of the requested full-size map is included in the Application Supplement as Attachment L.

2. Stipulation 24(a)(9)(viii) states that the analysis of shadow flicker effects “will identify potential mitigation measures needed (if any) to offset any identified impacts. The report will specify the mitigation options, and for illustrative purposes, discuss what additional measures could feasibly be implemented once the Facility is constructed.” Therefore, facility design mitigation measures, as identified in Application Exhibit 24 (10) at pages 19 through 22 should be addressed, particularly items “C. Relocation” and “F. Downsizing” or elimination of problem turbines from facility design. Operational stage mitigation, such as limiting operation of problem turbines during periods of excessive shadow flicker generation, should also be addressed. Furthermore, Stipulation 24 does not limit consideration of impacts and mitigation of shadow flicker to non-participating receptors. Facility participant-receptors should be included in the discussion of impact avoidance, minimization and mitigation.

**Response:** Exhibit 24(a)(9) states, *“In summary, adverse shadow flicker impacts are not anticipated. Of the 55 receptors predicted to exceed the 30-hour threshold, 32 are Facility participants, while the remaining 23 are non-participating property owners. Additional evaluation through viewshed analysis revealed that 11 of the 23 non-participating receptors are not anticipated to receive any shadow flicker due to the extent of the screening by intervening vegetation. However, because the final turbine model is not known, and to provide a conservative, worst-case analysis, this study evaluates the potential impact of 58 turbines with the largest rotor diameter. Therefore, it is anticipated that the number of hours per year that some receptors will experience shadow flicker will be less than modeled. A discussion of mitigation options are provided in Exhibit 15 and the Shadow Flicker Report (Appendix U).”* As indicated in the quoted text, the reader is directed to Exhibit 15 for a discussion of shadow flicker mitigation. Exhibit 15(e)(4) states, *“...if a turbine model with a smaller rotor diameter is ultimately used (i.e., 120 meters) the shadow flicker analysis shows that there would be the potential for significantly less impact to receptors (i.e., model shows 28 receptors over the 30 hour threshold). However, because the final turbine model is not known, and to provide a conservative, worst-case analysis, this study evaluates the potential impact of 58 turbines with the largest rotor diameter. Therefore, it is anticipated that the number of hours per year that some receptors will experience shadow flicker will be less than modeled.”* In other words, once the project receives its Certificate and the Applicant determines the turbine model to be used (and number of turbines to be built) an updated shadow flicker analysis will be conducted. The Applicant commits to operating the Facility such that predicted shadow flicker will not exceed 30 hours per year at non-participating residences, and the updated shadow flicker analysis will be provided to DPS Staff as a required pre-construction compliance filing.

Mitigation is addressed in Exhibit 15(e)(4), which further states, “Where shadow flicker does occur from the Facility wind turbines, it is anticipated that it can be readily mitigated by planting of trees to screen the affected windows from the sun, or by the installing blinds or curtains. Closing blinds or curtains on windows that face the turbine(s) during periods of shadow flicker effectively mitigates shadow flicker impacts. These mitigation options can be easily implemented even after the Facility has been constructed, and will be documented through the complaint resolution process.” From a practical perspective, turbine relocation due solely to shadow flicker mitigation would not occur because other mitigation measures will be effective, and as indicated above the Applicant commits to operating the Facility such that predicted shadow flicker will not exceed 30 hours per year at non-participating residences.

Regarding participants vs. non-participants, please note that all receptors (regardless of their participating status) were evaluated. As indicated in the quoted text above “Of the 55 receptors predicted to exceed the 30-hour threshold, 32 are Facility participants, while the remaining 23 are non-participating property owners.” Furthermore, Exhibit 15, Table 15-2 provides additional information regarding modeled shadow flicker on all receptors. Specific to mitigation for project participants, although not explicitly stated in the Application, the agreement between the Applicant and the respective participating landowner effectively mitigates any and all impacts that may be experienced due to shadow flicker.

## **EXHIBIT 25: EFFECT ON TRANSPORTATION**

1. Page 7 of Exhibit 25 notes (regarding cut and fill activity) that:

[A]pproximately 347,981 cubic yards of material will be excavated for Facility construction. Additionally, approximately 133,028 cubic yards of fill material (of which 55,375 cubic yards will be gravel) will be utilized for the construction of the Facility. With the exception of gravel, fill material will be derived from excavated material, and no fill will need to be imported for construction of the Facility. Furthermore, it will not be necessary for materials to be removed the Facility Site.

The Application does not contain a description of the remaining 77,653 cubic yards of fill and its origins.

**Response:** As indicated in the referenced Application text, “Approximately 347,981 cubic yards of material will be excavated for Facility construction. Additionally, approximately 133,028 cubic yards of material... will be used for the construction of the Facility.” Although not explicitly stated in the Application, there will be an excess of approximately 214,953 cubic yards of excavated material and the Applicant intends to utilize this material to satisfy any Facility fill needs. This is stated in the Application text (as referenced in the comment): “With the exception of gravel, fill material will be derived from excavated material, and no fill will need to be imported for construction of the Facility.”

Therefore, the Applicant does not believe this should have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164 .

Also, Table 25-2, Construction Vehicle Volumes, contains information pertaining to the total volume of gravel. This gravel total is 40,171 cubic yards, which is less than the noted total of 55,375. Stipulation 25(c)(1) notes that the Application will include:

An estimate of the number, frequency and timing of vehicle trips based on the site plan and location of turbines, along with the number of phases, estimated quantities of earthwork and materials to construct facilities. A tabulation of the anticipated construction vehicle volumes for each site, including delivery flat beds, cranes, concrete trucks, earth disposal trucks, and contractor worker vehicles.

**Response:** The discrepancy in calculated amount of gravel is associated with the assumed depth of gravel on access roads. The 55,375 cubic yard calculation incorrectly assumes a 12” gravel depth whereas the 40,171 cubic yard calculation correctly assumes a 9” gravel depth. Therefore, because the Construction Vehicle Volumes are based on the 40,171 cubic yard calculation the information provided in Table 25-2 is accurate. However, the access road detail provided on Sheet C-601 of the Preliminary Design Drawings (Application Appendix M) has been updated to indicate the correct depth of gravel, and the updated detail is provided with this Application Supplement as Attachment E.

Per Stipulation 25(c)(1), the following information must be provided:

- a) The timing of vehicle trips;

**Response:** The general timing of vehicle trips is addressed in Section 5.2 of the Route Evaluation Study, which was provided in Appendix WW of the Application. The exact timing of vehicle trips will not be determined until the BOP contractor is engaged, which will take place following receipt of the Certificate of the Facility.

- b) A consistent number for the estimated gravel to be brought in for Facility construction (either 40,171 cubic yards (tallied from table) or 55,375 cubic yards (noted total of gravel to be imported on page 7)), or explain the discrepancy between the numbers provided in the table and the text on page 5 of Exhibit 25;

**Response:** The discrepancy in calculated amount of gravel is associated with the assumed depth of gravel on access roads. The 55,375 cubic yard calculation incorrectly assumes a 12” gravel depth whereas the 40,171 cubic yard calculation correctly assumes a 9” gravel depth. Therefore, because the Construction Vehicle Volumes are based on the 40,171 cubic yard calculation the information provided in Table 25-2 is accurate. However, the access road detail provided on Sheet C-601 of the Preliminary Design Drawings (Application Appendix M) has been updated to indicate the correct depth of gravel, and the updated detail is provided with this Application Supplement as Attachment E.

- c) Describe what material will account for the 77,653 cubic yards remaining from the 133,028 (which is noted as the total additional fill needed on page 7 of Exhibit 25 and

page 1 of Exhibit 21 (provided in cubic feet)) detailing quantities of earthwork and materials to construct facilities;

**Response:** As indicated above, no fill (beyond gravel) is anticipated to be imported. Therefore, details associated with quantities derived from off-site sources are not necessary.

- d) As described above, it appears that 77,653 cubic yards are not accounted for in the Construction Vehicle Volume Table on page 7 of Exhibit 25. In Table 25-2, include the estimated material and truck volume for the additional 77,653 cubic yards to be imported to the Facility Site (Stipulation 25(c)(1) requires the following submittal: A tabulation of the anticipated construction vehicle volumes for each site, including delivery flat beds, cranes, concrete trucks, earth disposal trucks, and contractor worker vehicles).

**Response:** As indicated above, no fill (beyond gravel) is anticipated to be imported. Therefore, details associated with quantities derived from off-site sources are not necessary.

## **EXHIBIT 27: SOCIOECONOMIC EFFECTS**

1. Stipulation 27(a) states that the Application will include an estimate of the average construction “work force, by discipline, for each quarter during construction, and an estimate of the peak construction employment level.” While the Application includes a table with an estimate of the average construction workforce, by discipline, for each quarter during the period of construction, it does not include an estimate of the peak construction employment level.

**Response:** This information was provided in the Application. Specifically, page 3 of Exhibit 27 states, “*The JEDI model resulted in an estimated construction workforce of 75 total FTE positions (“jobs”) associated with the Facility. Of these, 70 of the jobs will occur in the Construction Labor, while five of the jobs includes the disciplines of engineers and other professional services.*” Although not explicitly stated, the 70 jobs referenced in this sentence represents the peak construction workforce.

Therefore, the Applicant does not believe this should have been identified as a deficiency of the Application and no additional information is required for the Board to find that the Application complies with PSL 164.

2. Stipulation 27(c) provides that the Application will include an estimate of the annual secondary employment and economic activity likely to be generated in the vicinity of the Facility by the construction of the plant. The Application includes secondary employment numbers associated with construction of the Facility but fails to include estimates about other economic activity.

**Response:** The Application does not fail to include estimates about other economic activity associated with construction and therefore this comment is inaccurate. Specifically, page 27 of the Socioeconomic Report (provided as Appendix DDD to the Application) states, “*In addition to jobs and earnings, the construction of the Project is expected to have a positive impact on economic output, a measurement of the value of goods and services produced and sold by backward-linked industries. As described in the definition above, output provides a general measurement of the amount of profit earned by manufacturers, retailers, and service providers connected to a given project. The*

*value of economic output associated with Project construction is estimated to be \$79,600,000. Between workers' additional household income and industries' increased production, the impacts associated with the Project are likely to be experienced throughout many different sectors of the statewide economy."*

Therefore, the Applicant does not believe this should have been identified as a deficiency in the Application and no additional information is required for the Board to find that the Application complies with PSL 164

3. Stipulation 27(e) requires the Application to include estimated secondary employment and economic activity generated by Facility operation. The Application provides information on jobs and the dollar value of economic activity, but fails to provide an estimate of the dollar value of economic activity likely to be generated by facility operation.

**Response:** The Application does not fail to include estimates about other economic activity associated with operation and therefore this comment is inaccurate. Pages 28 and 29 of the Socioeconomic Report (provided as Appendix DDD to the Application) provide information about other economic activity associated with operation.

Therefore, the Applicant does not believe this should have been identified as a deficiency with the Application and no additional information is required for the Board to find that the Application complies with PSL 164.

4. Stipulation 27(i) requires the Application to include detail regarding the anticipated payment in lieu of taxes (PILOT) "agreement with local tax jurisdictions, including the involvement of the Chautauqua County Industrial Development Agency." The Application does not mention the Chautauqua County Industrial Development Agency. The Applicant should provide an explanation of any past and anticipated involvement of County and local jurisdictions in potential PILOT agreement discussions for the Project.

**Response:** The Applicant has had several conversations and/or meetings with the CCIDA regarding a PILOT. The Applicant plans to submit a complete PILOT application to the CCIDA in late 2016 along with an application filing fee, which will trigger the CCIDA to respond with a resolution to review the application and draft a funding agreement.

## **EXHIBIT 31: LOCAL LAWS**

1. In accordance with 16 NYCRR §1001.31 the Applicant should provide the information and analysis required by 16 NYCRR §1001.31(a) through (e), specifically addressing the proposed use, design and area requirements including height, setback, lot size, and related details. The Applicant should also provide copies of any town laws not otherwise provided in the Application.

**Response:** The Applicant has provided the information and analysis required by 16 NYCRR § 1001.31 (a) through (e) including providing all relevant copies of the applicable town laws, in particular the local laws that regulate wind projects. The full zoning code for the Town of Cherry Creek is included as Attachment M to this Application Supplement. The Arkwright zoning code has been requested from the Town and will

be provided when we receive it from the Town. The full zoning code for Stockton (the only project components proposed for Stockton is the POI and generator lead line) and Charlotte were provided with the Article 10 Application.

The Applicant has also negotiated Host Community Agreements (“HCA”) with the Towns of Cherry Creek, Arkwright and Charlotte. These agreements cover road use and repairs related to the Facility’s construction and use, host community payments, decommissioning, and on-site monitoring for compliance with New York State Uniform Fire Prevention and Building Code and the Energy Conservation Code of New York State. These HCAs provide the Host Communities with benefits and mitigate specific impacts of the Facility.

The Towns of Cherry Creek, Arkwright and Charlotte have also passed resolutions in support of the Facility and of the Applicant’s requests pursuant to 16 NYCRR §1001.31 requesting the Board not apply certain local substantive requirements.

The proposed Facility is fully supported by the local host communities and the Applicant has worked with these communities to identify the provisions of their local laws which they would have applied to this Facility but for the Article 10 process. Accordingly, the Applicant believes all relevant and applicable local laws were identified in the Application.

a) Town of Charlotte

The listing and analysis of applicable local laws only addresses Wind Energy Conversion Systems, but does not address permanent facilities including the proposed Operations and Maintenance building and related site development. The Application should also provide additional review of other aspects of local laws that are generally applicable to site development and construction, such as:

SECTION 614 Signs

SECTION 620 Construction, Excavation, Piling of Materials Near Lot Lines

**Response:** Section 618 defines Wind Energy Facility to include “all related infrastructure, electrical lines and substations, access roads, and accessory structures”. The Operations and Maintenance building is considered part of the Wind Energy Facility and therefore Section 618 is applicable to the Operations and Maintenance building. Certain portions of Section 618 do address permanent facilities, i.e. the provision on setbacks states other structures shall comply with the underlying zoning district regulations. The Applicant addresses this provision in the Application. Furthermore, as outlined above the Applicant worked with the Town of Charlotte to identify the provisions of their local laws which they would have applied to this Facility but for the Article 10 process. Therefore, the Applicant believes all relevant and applicable aspects of the local law have been identified.

However, the Applicant has reviewed the Sections identified (614 and 620) and the Operations and Maintenance building will be constructed and operated in compliance with these sections.

b) Town of Stockton

The listing and analysis of applicable local laws does not address the proposed interconnection switchyard as an accessory structure siting (Town of Stockton Zoning Law, definitions pg. 6); or address related lot coverage; or front, side or rear setback requirements (Section 403.2 - Agricultural (A) District Unit Standards); or height restrictions pertaining to substation or transmission line structures proposed (Town Code Section 403.2; and Town Code Section 504 - Height).

**Response:** The definition of accessory structure under the Town of Stockton Zoning Law is limited to Telecommunication Towers and is not applicable to the switchyard or transmission equipment. The most applicable use definition for the proposed point of interconnection and generator lead line is “essential services” under the Town of Stockton zoning code.

The Applicant consulted with the Town to identify if any of the zoning restrictions for the Agricultural district would be applicable to the proposed point of interconnection and generator lead line. The Applicant provided the Town of Stockton Code Enforcement Officer a drawing of the proposed point of interconnection and generator lead line and confirmed that the lot and height restrictions are not applicable and the proposed point of interconnection and generator lead line are acceptable to the Town.

Furthermore, the Applicant worked with the Town of Arkwright to identify the provisions of their local laws which they would have applied to this Facility but for the Article 10 process, and they did not identify any sections of the Town Code which they felt would apply to the point of interconnection and generator lead line.

## **EXHIBIT 32: STATE LAWS AND REGULATIONS**

1. The Application does not comply with requirements of 16 NYCRR §1000.8(a)(1) for consideration of Clean Water Act §401 Water Quality Certification. Exhibit 32 states that “the request for WQC is not included in this Application and will be submitted at a later date” (Application Vol. II, Exhibit 32 at page 1). A timetable indicating a schedule for requesting the §401 Water Quality Certification must be provided.

**Response:** The decision on the final turbine model and associated final footprint/design of the Facility will take place following receipt of the Certificate. Final design is required prior to preparing and submitting the Section 404/401 permit application. Therefore, the Section 404/401 permit application will likely be submitted in Q3 or Q4 of 2017.

## **EXHIBIT 33: OTHER APPLICATIONS AND FILINGS**

The Application at Exhibit 33 does not include discussion or acknowledge applications or filings pending with either the New York State Independent System Operator (NYISO) or the Applicant’s proposal to participate in the New England Clean Energy market.

**Response:** The Facilities study will initiate as soon as NYISO begins the Class Year Study. The exact schedule will be determined by NYISO.

1. The Applicant must provide a description of the status of its interconnection review process at the NYISO, as well as a schedule and description of future milestones of that review.

**Response:** The Facilities study will initiate as soon as NYISO begins the Class Year Study. The exact schedule will be determined by NYISO and the milestone of that review will be the completion of the Facilities study and receipt of the Facilities study report.

2. The Applicant must submit to DPS Staff for review any un-redacted bidding documents (excluding copies of previously filed Article 10 Application, Preliminary Scoping Statement, or Public Involvement Program Plans) filed in response to the New England Clean Energy RFP for provision of renewable energy into the New England ISO market (see <https://cleanenergyrfp.com/bids/>).

**Response:** Exhibit 33 requires a statement whether the Applicant has pending, or knows of others who have pending...any application or filing which concerns the subject matter of the proceeding before the Board. For such applications or filings, the Applicant is required to disclose whether such filing will have any effect *on the grant or denial of the certificate and whether the grant or denial of the certificate will have an effect on the filing.* (emphasis added).

The Applicant is hereby confirming that it has pending an Application to the New England Clean Energy Request for Proposal. As stated in the Application, the Facility is not dependent on actions taken by the New England ISO and therefore the requested materials do not have any effect on decisions by the Applicant regarding the Facility. The Applicant is not aware of any reason why the New England ISO filing will have an effect on the grant or denial of the Certificate by the Siting Board. Moreover, the Applicant is not aware of any reason why the grant or denial of the certificate will have an impact on the RFP. In addition, because of the nature of the competitive process for procurement of RECs, the commercial information contained in the RFP is highly confidential and sensitive business secrets and, even if relevant, such information cannot be disclosed in this proceeding.

## APPENDICES

### Notification of Application

The Application filing indicates that the Applicant served copies of the Application on the appropriate agencies and individuals as per Article 10 regulation. However, the Application materials do not indicate that the Applicant followed procedures established in the approved PIP Plan, namely that the Applicant will issue a notification to all known stakeholders seven days or more prior to each project milestone (Section 5.5). The Application materials do not indicate that the Applicant sent a letter or email to the stakeholder list notifying the stakeholders that the Application was being filed with the Commission.

**Response:** Additional information associated with stakeholder notifications is provided as follows:

The Applicant acknowledges that it did not send a letter or email to the stakeholder list notifying the stakeholders that the Application was being filed with the Siting Board. However, please note that the Applicant held a public open house at the Pine Valley Veterans Association in Cherry Creek on August 11, 2016. The invitation for the open house was sent to the stakeholder list, and the invitation also indicated that the Application had been filed. During this open house the Application submittal was discussed, copies of the Application were on hand for public review, and maps from the Application (e.g., Figure 2-2) were mounted and displayed. Approximately 60 members of the public and stakeholders attended. Approximately 10 questions were asked and there were no negative comments.

#### **APPENDIX KK -BIRD AND BAT SURVEY REPORT**

1. DEC advises that the “Bird and Bat Survey Report” (Appendix KK) is dated January 2015, but includes only a summary of the 2013-2014 eagle use survey results. A report submitted to DEC dated April 10, 2015 fully describes the eagle use surveys. The most complete and recent reports should be included in the Application. Additionally, the January 2015 report refers to a memo report “Draft Cassadaga Wind Project 2013-2014 Eagle Use Point Count Survey Results; 26 November 2014” which has not been and should be submitted to DEC.

**Response:** The most complete and recent reports are included in this Application Supplement as Attachment N.