



# **EIGHT POINT WIND ENERGY CENTER**

**Case No. 16-F-0062**

**1001.2 Exhibit 2**

**Overview and Public Involvement**

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## Exhibit 2: Overview and Public Involvement

### 2(a) Brief Description of the Proposed Facility

The Eight Point Wind Energy Center (the Project) will have a maximum generating capability of approximately 101.8 megawatts (MW) from 31 wind turbines located on land either leased or purchased from owners of private property located in the Towns of Greenwood and West Union in Steuben County, New York (see Figures 2-1 and 2-2). The Applicant intends to construct, own, operate, and maintain all components of the Project. In August 2016, the Applicant signed a long-term agreement to sell the Renewable Portfolio Standard (RPS) attributes to the New York State Energy Research and Development Authority (NYSERDA).

The Application and evaluation included herein includes facilities for a proposed total of 35 wind turbines, 31 of which will be constructed to meet the 101.8 MW of power. Four extra or “alternate” sites are evaluated in the event that any of the 31 primary sites become unfeasible to build because of issues discovered prior to or during construction. Although only 31 of the 35 proposed turbines will be constructed, evaluating 35 turbines (and associated components) will demonstrate the maximum (and therefore conservative) level of potential impacts.

The Applicant proposes to construct a Project collection substation and will also construct an approximately 16.5-mile overhead 115 kilovolt (kV) transmission line. The transmission line will interconnect to new point of interconnection (POI) facilities within the New York State Electric & Gas (NYSEG) existing 115 kV Bennett Substation in Hornellsville, New York. Because the transmission line is greater than 100 kV and the length exceeds 10 miles, it is not part of the Project for this Article 10 Application and instead will be permitted separately under Article VII of the New York Public Service Law (PSL). Therefore, the need for, and environmental impact of, the 115 kV transmission line associated with the Project will not be evaluated in detail in the Article 10 Application.

**Wind Turbines:** The Project will most likely utilize primarily General Electric (GE) 3.43 MW wind turbines and also likely utilize four GE 2.3 MW wind turbines. Brochures prepared by GE for each of the wind turbine models being utilized for the Project are included herein as Appendix 2-1 and Appendix 2-2. The turbines are three-bladed, upwind, horizontal-axis wind turbines. The 3.43 MW wind turbines have a rotor blade diameter of 137 meters (449.4 feet). The turbine rotor and nacelle will be mounted on top of a 110 meter (360.8 feet) tubular steel tower. Each wind turbine will be capable of generating up to 3.43 MW of electricity. The 2.3 MW wind turbines have a rotor blade diameter of 116 meters (380.5 feet) and a 94-meter (308.3 feet) tubular steel tower. Turbine locations are portrayed graphically in Figure 3-1, and have been sited based on numerous setback and constructability considerations that are outlined in the Application.

**Access Roads:** Roads used to access turbine sites will follow existing farm roads and trails where practicable in order to minimize the need for new roads. Temporary access roads used during construction will be gravel surfaced and approximately 32 feet (9.8 meters) wide to accommodate the movement of component delivery. Following the completion of construction, the temporary access roads will be restored to a narrower width of 16 feet (4.9 meters) for permanent operations and maintenance purposes. The total length of access roads is approximately 14.2 miles.

**Collection Lines:** The 34.5 kV collection lines will connect the wind turbines with the Project collection substation. The total length of collection line being included as part of the Application for the Project is approximately 34.8 miles; however, approximately 3.7 miles is considered alternate at this time, as the Applicant is considering two to three potential routes to electrically connect Turbines 18, 19, 20, 27, 31 and Alternate Turbine 4. Only one route between these turbine's locations will be selected, designed, and constructed. The vast majority of the collection lines will be installed underground (approximately 30.4 miles) via direct burial.

**Project Collection Substation:** The onsite 34.5 kV collection lines will gather the power from all the wind turbines and transport it to a new centrally located Project collection substation where the power will be transformed to 115 kV and connected to the Article VII jurisdictional interconnecting transmission line. The collection substation will be located near the northeast corner of King Hill Road and Christian Hollow West Union Road in the Town of Greenwood (see Figure 3-1). The construction of the collection substation is anticipated to encompass approximately 0.5 acres of an existing open field.

**Meteorological Towers:** The Project will utilize one to two meteorological towers, located west of Turbines 5 and 21. The structures will be steel lattice towers approximately 361feet in height.

**Operations and Maintenance Building:** The Operations and Maintenance (O&M) building will be located within the Project Area, immediately north of King Hill Road to the east of Christian Hollow West Union Road in Greenwood. The O&M site will also host parking and storage areas and will support the permanent O&M staff. The building will be an approximately 5,000 square foot single story structure.

## 2(b) Brief Summary of the Application Contents

The Article 10 Application includes a total of 41 exhibits, of which six were deemed not applicable to the Project. Supporting information for each exhibit is provided in the table below. For purposes of this Application, the following definitions will be used to describe various areas or boundaries of the Project:

- **Project Area:** the 15,295-acre area within a boundary encompassing all of the Project components within the Towns of West Union and Greenwood as shown on Figure 2-1. This boundary includes both participating land parcels and non-participating parcels.
- **Study Area:** the area within at least a 5-mile buffer of the currently proposed location of the Project's generating facility components. The area within which many of the resource area impact studies for this Application were conducted.
- **Facility Site:** the portion of the Project Area that includes all of participating land parcels on which components of the Project have been sited. No parcels without a component are considered part of the Facility Site.
- **Component or Facility:** an individual piece of equipment or improvement of the Project, including a wind turbine, access road, laydown area, collection substation, collection line, O&M building and/or meteorological tower.
- **Component Impact Area:** the immediate work area around an individual component where the potential for site disturbance exists.

- **Facility Impact Area:** the combined total impact area for all Component Impact Areas. That portion of the Facility Site where the potential for site disturbance exists.

**Table 2-1. List of Exhibits and Supporting Documentation**

Exh.	Exhibit Title/General Description	Supporting Documentation
1	<b>General Requirements</b>	Certificate of Formation
2	<b>Overview and Public Involvement:</b> Brief overview of the Project, public communications and rationale for why the Project should be granted a certificate.	Stakeholders List Meeting Log
3	<b>Location of Facilities:</b> Maps and information on the location of the proposed Project.	Proposed Project Components Location Topographic Maps Geographic and Political Features Map Facility Shapefiles
4	<b>Land Use:</b> Description of existing and proposed land use based on local, state, and federal classifications. Include anticipated facility impacts and conformance with publically known land uses and use regulations.	Existing and Proposed Land Use Maps Land Use Qualitative Assessment Aerial Photograph Overlays
5	<b>Electric Systems Effects:</b> Description of facility transmission impacts of operation and maintenance. Include applicable codes, standards, and protocols for generation and ancillary features design, construction, commissioning, and operation.	SRIS Operation and Maintenance Plan Engineering Codes, Standards, Guidelines and Practices Transmission Owner Standards and Requirements Vegetation Clearance and Management Plan Wildlife Resource Recovery System (WRRS) Inspection and Maintenance Schedule
6	<b>Wind Power Facilities:</b> Explanation of wind facility design in accordance with applicable local (substantive), state, and federal regulations to support minimal resource impacts and ensure public safety. Include specific setback requirements and recommendations based on wind meteorological analyses.	Town of Greenwood, and West Union Local Law Wind Meteorological Analysis Additional Wind Turbine Specifications
7	<b>Natural Gas Power Facilities</b>	Not Applicable
8	<b>Electric System Production Modeling:</b> Input data utilized to calculate facility emissions and generating capacity. Input data determinations confirmed through DPS and DEC coordination.	Electric Generation Production Simulations Projected Emissions Analysis
9	<b>Alternatives:</b> Analysis of applicable alternative facility and component locations and suitability of existing environmental setting.	-
10	<b>Consistency with Energy Planning Objectives</b>	New York State Energy Plan SRIS
11	<b>Preliminary Design Drawings:</b> Facility component drawings prepared by a professional engineer, or architect licensed and registered in New York State. Comparison of preliminary design drawings to applicable engineering codes, standards, and guidelines.	Preliminary Design Drawings Site Plan Drawings of all Facility Components

Exh.	Exhibit Title/General Description	Supporting Documentation
12	<b>Construction:</b> Facility installation and monitoring procedures in conformance with applicable design, engineering and installation standards and criteria.	Preliminary Quality Assurance and Quality Control (QAQC) Plan Preliminary Plans to Avoid Interference with Utilities Public Complaint Resolution Plan Agricultural Monitoring Plan
13	<b>Real Property:</b> Facility site property rights accessed via lease or easement agreements and description of tax property information.	Property Boundary Map Property/Right of Way Map
14	<b>Cost of Facilities:</b> Description of the facility capital costs.	Total Capital Cost of Facility Estimate
15	<b>Public Health and Safety:</b> Discussion of potential adverse impacts posed by construction or operation of the facility.	Noise Analysis Shadow Flicker Analysis Study Area Maps Stormwater Pollution Prevention Plan (SWPPP) Spill Prevention and Control Countermeasures Plan (SPCC)
16	<b>Pollution Control Facilities</b>	Not Applicable
17	<b>Air Emissions:</b> Evaluation of the facilities' pollution control technologies and plans to handle, store, and dispose of waste byproducts.	-
18	<b>Safety and Security:</b> Measures to ensure safe practices during construction and operation of the Project, including complaint resolution procedures.	Plan for Safety/Security during Facility Construction Plan for Safety/Security during Facility Operation Emergency Response Plan
19	<b>Noise and Vibration:</b> Comprehensive analysis of acoustic wind turbine effects.	Noise Impact Study Noise Level Estimates Construction Operations Plan Preliminary Blasting Plan
20	<b>Cultural Resources:</b> Research to determine if any cultural resources are impacted by the Project.	Phase IA Archaeological Resources Study Phase IB Archaeological Resources Study Unanticipated Discovery Plan
21	<b>Geology, Seismology, and Soils:</b> Analysis of the geology and soils in the Project Area to ensure area can support wind turbines and to address potential impacts.	Existing Slopes Map Soil Types Map Comprehensive Subsurface Drain Tile Repair Plan Depth to Bedrock Maps Preliminary Geotechnical Investigation Plan
22	<b>Terrestrial Ecology and Wetlands:</b> Comprehensive study of plant and wildlife in the Project Area, potential impacts from the Project and mitigation measures.	Plant Species List Plant Community Maps Invasive Species Prevention and Management Plan Wildlife Communities List Avian and Bat Conservation Strategy Delineated Wetlands Map Wetland Functional Assessment
23	<b>Water Resources and Aquatic Ecology:</b> Review of Project impacts to water resources in the area and plans to mitigate impacts.	Depth to Groundwater and Bedrock Maps Surface Water Map Preliminary SWPPP Preliminary SPCC Post Construction Sediment and Erosion Control Plan Inadvertent Return Plan Invasive Species Control Plan

Exh.	Exhibit Title/General Description	Supporting Documentation
24	<b>Visual Impacts:</b> Visual impact assessment of the Project, including photo simulations.	Visual Impact Assessment (VIA) Viewshed Analysis Photographic Simulations Viewshed Maps
25	<b>Effect on Transportation:</b> Impact of the Project on transportation including during construction and operations.	Conceptual Site Plans Road Intersection Suitability Analysis Trip Generation Study Traffic and Transportation Analysis Capital Airspace Generation (CAG) Analysis Federal Aviation Administration (FAA) Notices
26	<b>Effect on Communications:</b> Analysis of Project impact on all types of communications in the Project Area.	AM/FM Radio Report Land Mobile and Emergency Services Report Off-Air TV Report Microwave Study National Telecommunications and Information Administration (NTIA) Concurrence
27	<b>Socioeconomic Effects:</b> Analysis of the Project and its impact to the economy and jobs.	National Renewables Energy Laboratory Jobs and Economic Development Impact Model
28	<b>Environmental Justice:</b> Air quality and health impacts on certain communities.	Environmental Justice Area Map
29	<b>Site Restoration and Decommissioning:</b> Plans for site restoration upon Project decommissioning.	Decommissioning Plan
30	<b>Nuclear Facilities</b>	Not Applicable
31	<b>Local Laws and Ordinances:</b> Local laws pertinent to the Project.	Towns of Greenwood, and West Union Local Laws and Ordinances
32	<b>State Laws and Regulations:</b> State laws pertinent to the Project.	-
33	<b>Other Applications and Filings:</b> Other state and federal applications and filings that are relevant to the Project.	-
34	<b>Electric Interconnection:</b> Description of Project electric systems	-
35	<b>Electric and Magnetic Fields:</b> EMF analysis for certain Project and Project-related electric systems.	Electric and Magnetic Field (EMF) Study
36	<b>Gas Interconnection</b>	Not Applicable
37	<b>Back-Up Fuel</b>	Not Applicable
38	<b>Water Interconnection:</b> Description of Project water uses and sources.	-
39	<b>Wastewater Interconnection:</b> Description of disposal of wastewater during construction and for the O&M building.	-
40	<b>Telecommunications Interconnection:</b> Description of communications network required for the Project.	-
41	<b>Applications to Modify or Build Adjacent</b>	Not Applicable

## 2(c) Brief Description of the Public Involvement Program prior to Submission of the Application

The draft Public Involvement Program (PIP) plan was submitted to the Siting Board on January 29, 2016. Following the receipt of comments on the PIP, the PIP was updated, finalized, and filed by the Applicant on March 29, 2016. An additional update to the PIP was filed July 8, 2016, which made updates to stakeholder information based upon public comments, changes in elected and appointed officials, and a revised (reduced) Project Area boundary. Materials to encourage public involvement throughout the Article 10 process such as fact sheets, newsletters, presentations from town board meetings and open house events, and educational materials have been prepared and made available on the Project website ([www.eightpointwind.com](http://www.eightpointwind.com)) beginning in April, 2016. The Applicant's efforts relating to language access, identification of any environmental justice areas, and the use of document repositories is outlined in the PIP, which can be found on the Project's website and on the Department of Public Service (DPS) website.

The Applicant has completed the pre-Application consultations set forth in the PIP and has held multiple stakeholder meetings. The Applicant has encouraged town board involvement through open dialog discussions and appearance at town board meetings and communications in Hornellsville, Jasper, Hartsville, Troupsburg, Canisteo, Greenwood, Andover, and West Union as detailed in the PIP Meeting Log (see Appendix 2-3). The Meeting Log incorporates town board meetings as well as public and agency correspondence or outreach through the Project website, local phone, and local office. Documented correspondence with the Applicant, along with significant questions and concerns related to the Project, are captured in the Meeting Log. PIP plan activities are ongoing, and include regular communications about the Project and Article 10 Application process through the stakeholder contact list, the Project website, and regular office hours at the Project office in Greenwood, NY.

The Applicant has mailed informational flyers to over 30,000 property owners and has held three open houses accessible to residents of the Study Area, in accordance with the PIP plan. At the open houses, attendees were given the opportunity to join the stakeholder list if they wished to receive notices of Project milestones and Project information updates. Additionally, the Project website, phone, and local Project office are available to provide the community with information about the Project. The Applicant has also had numerous meetings with landowners that are participating or interested in being a part of the Project in order to provide them with information and updates on the permitting process.

Through the PIP process, from meetings with state and town officials and landowners in the Project Study Area, and from written comments, the Applicant identified certain key issues and proposed certain changes to the Project, which are summarized below:

- The Town of Hartsville has town wind laws that are restrictive and many in the town oppose wind turbines due to perceived negative impacts. As such, the Applicant modified its original plans and moved all wind turbines farther south. Now the closest wind turbine is approximately four miles away from Hartsville.
- The conditions of roads during and upon the completion of construction. The Applicant is working with Greenwood and West Union town officials on a Road Use Agreement that will ensure the towns' concerns are addressed. The final Road Use Agreement will be provided upon completion.



- Impacts to wildlife by wind turbines. The Applicant has conducted extensive analyses and will continue to conduct studies to mitigate impacts to wildlife as more fully discussed in Exhibit 22.
- Town officials and landowners in the area expressed the desire to maximize the number of jobs and economic benefits. The Applicant is working on a Host Community Agreement with the towns and a Payment in Lieu of Taxes (PILOT) Agreement with Steuben County that could provide the community with over \$18 million in revenue during the first 20 years of operations. The final Host Community Agreement will be provided upon completion. The Applicant has also made a commitment to hire locally whenever practicable.
- Wind turbine sound. The Applicant will site turbines at least 1,400 feet away from residences and has provided a complete analysis of noise impacts in Exhibit 19. A number of potential wind turbine sites were removed or relocated based on noise concerns.
- Visual impact of night-time lighting for wind turbines. While the current lighting plan is compliant with Federal Aviation Administration (FAA) rules, in order to minimize the lighting impact, the Applicant is evaluating using an aircraft detection lighting system (ADLS). ADLS only lights up when aircraft are in the area, however, these systems are not feasible in all areas and they need to be approved by the FAA.

Stakeholders identified in the PIP (and those after submittal of the PIP and Preliminary Scoping Statement [PSS]) include local municipalities within the Project Area (host communities), encompassing the Towns of Greenwood and West Union, and their respective points of contact: Town Supervisors, County Administrator, and the appropriate Town or County Clerks. The stakeholder list also includes municipal officials from adjacent communities within the five-mile Study Area. In addition to municipal officials, the stakeholder list includes the followings people/entities: county, state and federal agencies, legislative representatives, highway departments, school districts, emergency responders, utilities, public interest groups and miscellaneous stakeholders identified during public outreach efforts.

Participating landowners (real property owners that have entered into lease, easement, purchase option, or setback agreements with Eight Point Wind, LLC), are included in the stakeholder list as one group. Adjacent landowners (property owners within 500 feet of the Project Facility parcels) have also been included in the stakeholder list as one group. Similarly, residents of the Study Area (non-participant landowners or adjacent landowners) have also been included in the stakeholder list as one group. An updated stakeholders list has been provided in Appendix 2-4.

## 2(d) Brief Description of the Public Involvement Program after Submission of the Application

The Applicant will continue to meet with state, county and town officials after the Application is submitted. Those meetings include regular visits to monthly town board meetings in the Project Area to keep town officials and residents updated on the status of the Project in addition to more open houses at the local office to inform local landowners on the Project and the Article VII transmission line associated with the Project. There will also be public hearings as part of the Article 10 certification process that stakeholders and interested landowners will be able to attend. The Applicant will also continue to meet with interested parties if requested. The Applicant will continue to engage stakeholders, sponsor public outreach activities to encourage involvement and open communication

with non-public entities, and continue meeting with stakeholders during preparation for construction, during construction itself, and during operation (as necessary). In addition, as described in Exhibit 6 of this Application, the Applicant will publish information on its complaint resolution procedures prior to the start of construction.

A current stakeholder list is included in this Application as Appendix 2-4. Identification of stakeholders has been an ongoing process as described in Section 2(c) above. In addition to notifications required under 16 NYCRR §§ 1000.6 and 1000.7, the Applicant will mail notice of the Application submittal to the Project mailing list comprised of the updated stakeholders list, including host and adjacent landowners, and additional addresses received through public outreach. The notice will include information on the Project generally and the Article 10 Application specifically.

## 2(e) Relevant and Material Facts Analysis

The Applicant has conducted a number of studies and analyses, supplemented by in-depth literature reviews, to support the Article 10 Application Exhibit requirements and ensure the safety and security of public and private resources. Analyses conducted in relation to the construction or operation of the Project extended beyond the Project Area to accurately represent impacts to resources as identified in Section 168 of the PSL. The information included in this Application is provided as a decisional basis for the Siting Board to grant the Certification in accordance with Section 168 of the PSL.

### **Section 168(2) of PSL**

Below is a brief overall analysis of the relevant and material facts for each required finding regarding the nature of the probable environmental impacts of the construction and operation of the Project.

**Ecology:** The Facility Site is comprised primarily of forest land (49%), active agricultural land (42%), successional shrubland (3%), and old field (5%) along with smaller amounts of barren/vacant land, open water, and wetland features (occupying less than 1%). No threatened, endangered, candidate, rare plant species, or significant ecological communities were identified at the Facility Site. Therefore, Facility construction and operation are not expected to result in adverse impacts to protected plants or significant adverse impacts to ecological communities.

Impacts to vegetative communities will occur as a result of construction, but have been minimized consistently throughout the process of siting components. Conservatively, up to 477 acres of vegetation will be temporarily impacted. Concurrently, up to 30.1 acres will be permanently displaced due to the siting of Project components. Impacts to ecological communities and associated plant communities will occur through the clearing of vegetated areas to allow for safe and effective Project related construction and activities. Although the siting of Project components will result in the loss of plant community acreages, no specific plant community will be significantly reduced in population or completely eradicated as a result of the Project. Project construction and operation are not proposed to adversely impact any rare or protected plants or significantly impact any ecological communities.

A majority of access roads, collection lines, and turbine locations have been sited along the edges of agricultural fields and forest/shrubland in order to minimize impacts to each specific habitat, and reduce the amount of fragmentation events in each vegetative community. Additionally, best management

practices (BMPs) will be implemented as part of construction and “no disturbance zones” will be identified during construction of the Facility to minimize or avoid disturbance impacts to plant communities. Most forest or scrubland areas that will be cleared for Project related construction will be allowed to revegetate in the operation phase of the Project.

**Air:** The Project wind turbines will generate electricity without combusting fuel or releasing pollutants into the ambient air (see Exhibit 17 for additional detail). Temporary, local, and minor impacts to air quality could result from the operation of equipment and vehicles as part of construction, including impacts from fugitive dust and temporary vehicle and generator emissions, but these impacts will be short-term and localized, and will be mitigated using approved mitigation measures.

Operation of the Facility will not generate vented or fugitive air emissions. Instead, the Project will displace air emissions from fossil fuel-fired power plants. Therefore, construction and operation of the Project is not anticipated to increase the concentrations of air pollutants in the ambient air or contribute to an exceedance of an air quality standard. The Project will reduce air emissions in New York State, contribute to cleaner air quality, and help the state meet its goal of reducing greenhouse gas emissions.

**Ground and Surface Water:** No major or permanent impacts to groundwater quality or quantity are anticipated to result from the Project, and wind energy uses essentially no water during operations as opposed to all conventional energy sources. There is potential for minor, short-term impacts to the local water table during the construction phase of the Project. Impacts to groundwater may occur through the introduction of pollutants from inadvertent discharges of petroleum and other chemicals, resulting from minor leaks or mechanical failures. The Project will adhere to a Project-specific Preliminary Spill Prevention, Control and Countermeasure (SPCC) Plan in order to minimize the potential for the release of hazardous chemicals during construction and operation of the Project. Exhibit 23 includes additional information regarding groundwater. Appendix 23-5 contains a copy of NextEra’s Preliminary SPCC Plan, which will be updated to address the Project prior to construction.

Wetland and waterbody delineations were conducted in the summer of 2016 and spring/summer of 2017. The siting of Project components have been performed to avoid temporary or permanent impacts to wetlands and waterbodies to the maximum practicable extent.

Certain construction activities may result in temporary direct and/or indirect impacts to surface waters, including the installation of access roads and turbine foundations, upgrading of existing roads, installation of collection lines (aboveground and buried), and the development of temporary staging areas and workspaces around turbine sites and substations. Direct impacts to surface waters include: sedimentation and siltation due to activities such as excavating and grading, buried cable installation resulting in waterbody bank and/or substrate disturbance, and direct placement of timber mats and/or fill to accommodate road crossings.

Impacts related to the construction of access road and collection line crossings will be minimized by utilizing existing crossings and also crossing at narrow wetland and waterbody locations where feasible. Impacts have also been minimized by completely moving (i.e., re-siting) Project components to avoid wetlands and waterbodies based on the results of the delineation efforts. Additionally, required stream crossings have been sited with existing access ways or along narrow sections of stream channel where

practicable. Where Project components are adjacent to, or cross, wetlands, streams or drainage ditches/swales, appropriate sediment and erosion control measures will be installed and maintained according to the Project-specific Stormwater Pollution Prevention Plan (SWPPP) for the Project, which is discussed in multiple Exhibits of this Application. A Preliminary SWPPP is included as Appendix 23-4 and will be completed prior to construction. The Applicant also proposes to install buried interconnect via horizontal directional drilling (HDD) under sensitive water resources, where practicable, to further reduce impacts.

Based on conservative estimates, a total of up to 4.1 acres of wetlands and 3,870 linear feet of waterbodies may be impacted as a result of the Project. Of these impacts, 4.1 acres of wetland and 3,701 linear feet of waterbodies will be disturbed only temporarily. A total of 0.05 acres of wetland and 169 linear feet of waterbodies are anticipated to be permanently impacted.

**Wildlife and Habitat:** Based on Project-specific information received from the New York Natural Heritage Program (NYNHP), New York State Department of Environmental Conservation (NYSDEC), U.S Fish and Wildlife Service (USFWS), and direct on-site observations, a list of state and federally-listed species was compiled for those species which are believed to occur, or have the potential to occur, within the Project Area. Site-specific information requests to agencies were made in order to determine the presence of rare, threatened, endangered, and special concern species.

One federally-listed species, the northern long-eared bat, is known to occur in the vicinity of the Project Area and is also listed as threatened in New York State. There are four additional state-listed species documented within the vicinity of the Project Area, including Henslow's sparrow, bald eagle, northern harrier, and the pied-billed grebe. The golden eagle, a state-listed endangered raptor, and great blue heron, a protected species in New York, were visually documented on-site by field staff. Seven species of special concern within the state were identified through correspondence with NYNHP and field observations (eastern small-footed myotis, Cooper's hawk, northern goshawk, osprey, red-shouldered hawk, sharp-shinned hawk, and grasshopper sparrow).

Impacts to wildlife and their various habitats have been avoided and minimized to the extent practicable, however, some impacts will occur as a result of this Project. Impacts are restricted to incidental injury and mortality due to various construction operations, displacement due to increased human activity during construction, temporarily increased silt and sedimentation impacts to aquatic habitats, and habitat disturbance and/or loss (including the loss of travel corridors) as a result of clearing, earth-moving, and the siting of Project components.

Whenever possible, the Project components have been intentionally sited on the edges of existing active agricultural fields, which provide limited habitat for wildlife due to periodic disturbances associated with normal agricultural operations. This was done to reduce impacts to natural communities and avoid impacting crop production/harvesting in adjacent agricultural areas. In areas where the siting of Project components required placement into forestland, successional shrubland, or successional old-field, impacts occur in areas where there is an abundance of available habitat directly adjacent to the impact corridors. As such, overall impacts to the habitat requirements and use for individual wildlife species in the Project Area are projected to be minor. Construction-related impacts will not, therefore, be significant enough to adversely affect local populations of any resident or migratory wildlife species. Given that only about 1% of forested habitat at the Project is expected to be cleared, that access roads

will have low levels of vehicle use, and that most of the turbines and access roads will be sited in previously cleared areas or on forest edges, it is highly unlikely that this Project poses a significant risk of habitat fragmentation.

Potential impacts to bat species during the construction phase could include direct mortality and also a loss of foraging/roosting habitat through the clearing of forestland for the placement of Project components. Construction of the Project is not expected to negatively impact the suitability of foraging or roosting habitat for bats. The distribution of species across the Project Area may shift somewhat as a result of creating additional edge habitat and cleared corridors, although sufficient intact forest patches will remain for species that forage within the forest interior habitats. During the operational phase of the Project, mortality could result from turbine-related impacts.

The Project is not expected to cause naturally occurring populations of common or rare birds to be reduced to numbers below levels for maintaining viability at local or regional levels. Less than 1% of all estimated anthropogenic bird mortality is attributed to wind projects. It is not anticipated that mortality at wind facilities in New York is likely to result in population-level impacts to any species of bird. In order to reduce impacts to birds and bats, the Applicant plans to conduct tree clearing between October 1 and May 1, when these wildlife species are not nesting or roosting in tree canopies.

The Project layout has also been designed to minimize bird and bat collision mortality events. In an effort to reduce avian and bat impacts, electrical collection lines between the turbines will reside underground for a vast majority of the Project. Lighting of the turbines and other Project related infrastructure will occur at the minimal levels approved by the FAA.

**Public Health and Safety:** Wind energy technologies do not pose significant environmental or public health impacts. Wind turbines reduce air emissions by providing clean, renewable energy and reduce the need for more fossil fuel combustion generation technologies that have higher levels of air emissions. Wind turbine operation does not involve fuel combustion or generation of air emissions to produce electricity. Minimal pollutants will be emitted during construction activities resulting from exhaust of diesel fired generators, vehicles, and construction equipment, and dust. BMPs will be implemented to the extent practicable to reduce construction related emissions.

Potential adverse impacts of the Facility can include tower collapse, shadow flicker, ice throw and blade failure. These potential impacts will be minimized by implementing siting and setbacks from residences, roadways, and other existing facilities. In the rare case that tower or blade failure occurs, these towers will be sited at a distance sufficient to reduce the chance of any potential incidents. Ice throw will be minimized by the use of sensors that will automatically shut down the wind turbine when turbine icing conditions are present.

A shadow flicker analysis, published information on the subject, and scientific analysis was used in turbine siting to mitigate impacts of shadow flicker to nearby residences. The study determined that five receptors will experience greater than 30 hours of shadow flicker per year, all of which are participating in the Project. Residences anticipated to experience shadow flicker from the Facility can reduce this exposure by vegetative screening and closing blinds or shades at the time of the flicker events.

Other impacts related to the Facility operation will involve noise impacts. A noise analysis has been conducted within two miles of each turbine location. Facility noise levels are not anticipated to exceed 45 dBA at any given non-participating residence located within two miles of Project wind turbines.

***Cultural, Historic, and Recreational Resources (Including Aesthetics and Scenic Values):*** The Project's impact to cultural, historic, and recreational resources is limited to potential visual impacts. The Project layout is being intentionally sited to avoid archaeological resources and the Project is not anticipated to affect any archaeological resources.

All Phase IA background research and Phase IB survey has been completed to determine the nature of any potential impacts to archaeological resources resulting from the construction and operation of the facility. The total Project acreage surveyed during the Phase IB is approximately 462 acres.

The Phase IA study revealed that eight Phase I archaeological surveys had been previously conducted and 18 archaeological sites had been previously identified within the vicinity of the Project Area. As a result of the Phase IB survey of the Project Area, a total of 633 artifacts were recovered from three newly identified archaeological sites and seven isolated finds. Two of the sites (EPW-TRC-1 and EPW-TRC-2) will be avoided by the Project and one site (EPW-TRC-3) is not recommended for further work. No additional work will be recommended for the survey areas under the current Project design. If future revisions to the current Project design potentially impact sites EPW-TRC-1 and EPW-TRC-2, additional Phase II studies are recommended to evaluate NRHP-eligibility.

Facility setbacks have been implemented to mitigate impacts to aesthetic and scenic value resources. These setbacks have been evaluated by visual assessments that include the evaluation of design, appearance, lighting, siting, avoidance and layout. Historical properties are identified in accordance with the National Register of Historic Places (NRHP) criteria for evaluation of historic properties. The majority of turbines will be placed on the edge of agricultural fields or well screened, forested areas to further reduce impacts to cultural, historic, and recreational resources.

As a result of the architectural survey, TRC identified 15 historic properties eligible for listing in the NRHP inside the Project Area of Potential Effects (APE) for the turbine field. This included 12 previously identified and three newly identified historic properties, as more fully described in Exhibit 20.

***Transportation:*** Construction traffic will involve the use of aggregate trucks, a construction crane, concrete trucks, and semi-trailers as described in Table 25-2 in Exhibit 25. A total of 191/192 trips are anticipated to support the delivery of equipment and construction activity. The Facilities' haul routes have been designed to minimize impacts to the extent practicable. These designs reflect limitations identified by the Transportation Study conducted in December 2016, and other related analyses to assist in reducing truck traffic on area roadways, delays, and damage to roadways during construction and operation of the Facility. From these analyses, three off-site road improvements may be required for turbine component delivery. Three bridges constructed with timber decks will likely need to be avoided or reinforced.

Based on information obtained from the NYSDOT, traffic volumes are anticipated to have similar volumes than the existing county roads. Some road widening of local town roads along delivery routes

will be necessary to accommodate road width and turning radii. Repairs and improvements associated with the Project will comply with Road Use Agreements (RUAs) with the Towns of Greenwood and West Union, which are currently being developed. The final RUA will be provided upon completion.

**Communication:** Comsearch was hired by the Applicant to conduct a review of potential impacts of the Project on communications technology. Comsearch determined a radio station may experience interference if it is located within 1.9 miles of the wind turbines, however, the closest station is located 10.5 miles from the proposed Facility. Therefore, the Project is not anticipated to create adverse impacts to any AM or FM stations. Thirty-nine television stations were identified within a 62.14 mile radius of the proposed Project. According to the Comsearch microwave study, there are no obstructions anticipated for any of the five microwave paths identified that intersect the Facility. Comsearch identified nine site-based emergency service licenses and 37 regional area-wide emergency service licenses designated for public safety utilization. No impacts are anticipated to any of the identified emergency services as their transmitter locations have the ability to propagate through wind turbine installation and operation. Additionally, there are no significant adverse impacts anticipated to municipal or school district services, Doppler Weather Radar next-generation radar (NEXRAD) systems, or GPS antennas registered with NOAA CORS in the vicinity of the Facility.

Coordination with the FAA is ongoing and the Applicant will identify impacts, if any, to the airspace under Title 49 of the United States Code, Section 44718. The Applicant began coordinating with the FAA in April 2017 to determine if there are any concerns associated with aviation or radar, including military concerns. The nearest Armed Forces facility to the Project is the Niagara Falls Air Reserve Station, approximately 90 miles northwest of the Project. The National Telecommunications and Information Administration (NTIA) indicated that none of the federal agencies represented in the Interdepartment Radio Advisory Committee (IRAC) had concerns with the proposed turbine locations. Coordination with the FAA and the Department of Defense on their review of the Project is ongoing, but the Applicant expects to be able to obtain Determinations of No Hazard for all wind turbines.

Comsearch has determined the Facility should have no major impacts to major communication technologies, including aboveground and underground utility and fiber optic lines. The “no major impact” determination includes consideration to: broadcast patterns, lines-of-sight, physical disturbance, co-located lines due to unintended bonding, and other interference potentials.

**Utilities and Other Infrastructure:** The Applicant will work with local utilities to ensure that there are no negative impacts to electric, water, or communications utilities and does not anticipate any negative impacts to infrastructure, other than temporary road impacts during construction which will be mitigated as described above and in Exhibit 25.

### **Section 168(3) of PSL**

In accordance with Section 168(3) of the PSL, the Board must make five determinations before granting a certificate for the construction or operation of a major electric generating facility.

***The Project is a beneficial addition to the electric generation capacity of NY State:*** New York Energy Law § 6-104 requires the State Energy Planning Board to adopt a State Energy Plan, the latest iteration of which was announced on June 25, 2015. The 2015 State Energy Plan contains a series of policy

objectives including 40% reduction in greenhouse gas emissions from 1990 levels, and 50% of electricity generation from renewable energy sources. The Project will directly make a significant contribution to these goals by providing emission free, low cost renewable energy to New York's energy market. It will also create job opportunities, support economic growth and help reduce the state reduce greenhouse gas emissions. The Project will produce enough zero emission energy to power approximately 47,000 average households in New York State.

***The construction and operation of the Facility will serve the public interest:*** Construction and operation of the Project will serve the public interest of those living within the Project Area and beyond. The Applicant is committed to hiring locally whenever possible and has already employed over 20 people from the state to assist with the development of the Project. Additionally, as described in more detail in Exhibit 27, the Project is anticipated to employ over 100 local jobs in construction trades, including equipment operators, truck drivers, laborers, and electricians, in addition to creating approximately half a dozen permanent operation and maintenance jobs over the 30-year expected life of the Project.

In addition to jobs in the state, the Applicant plans to contribute significant revenue to the community. The Applicant and the towns of Greenwood and West Union are close to finalizing a Host Community Agreement that will contribute nearly \$5 million to the towns over 20 years and the Applicant anticipates executing a PILOT agreement with Steuben County that will contribute over \$13 million to the county, towns and school districts over 20 years. The Project will generate millions of dollars in payments to landowners that are part of the Project, money which will benefit the local community and economy. The public interest will also be served by reducing greenhouse gas emissions and improving local air quality, as discussed above.

***Adverse environmental effects of the construction and operation of the Project will be minimized or avoided to the maximum extent practicable:*** While there will be impacts as a result of the Project, the Applicant has sought to avoid or to minimize those impacts. As evidenced and thoroughly discussed within this Application, the Applicant has conducted numerous studies and extensive analyses to assess and to avoid or minimize environmental effects. Examples include:

- Wetland surveys have been conducted and Facilities have been moved to avoid the vast majority of wetlands in the Project Area,
- Wildlife and habitat research has been conducted and Facility Components have been sited and adjusted to mitigate impacts; the Applicant will follow NYSDEC tree-cutting guidance and a post-construction avian and bat monitoring plan will be implemented,
- Sound studies have been conducted and wind turbines have been moved to avoid or minimize impacts to local residents,
- Extensive cultural analysis, including shovel tests, has been conducted to avoid impacting any historic resources at the Facility Site,
- The Applicant has worked extensively with landowners participating in the Project to address impacts to property, agriculture, livestock and other areas of concern and Project Facilities in areas that minimize impacts,



- During construction, the Applicant will use best management practices and implement mitigation measures, such as dust control, to minimize impacts; post-construction restoration will return properties and roads in as close to pre-construction condition as possible.

The Applicant has spent years and millions of dollars on the materials contained herein that support the Project and this Application in order to avoid and minimize impacts and ultimately build a wind project that will be a benefit to the community and the state of New York.

***The Applicant will avoid, offset or minimize the impacts caused by the Project upon the local community:*** While the Applicant believes that the Project will not result in or contribute to a significant and adverse disproportionate environmental impact in the community, the Applicant will avoid, offset or minimize the impacts caused by the Project upon the local community to the maximum extent practicable. In addition to the discussions above, and as previously discussed, the Applicant expects to execute Host Community, PILOT and Road Use agreements that will compensate the community for their willingness to host the Project and will ensure that roads in the community are properly maintained during construction and repaired thereafter. Other programs will also be implemented to minimize impacts including, but not limited to, a complaint resolution plan, a post-construction environmental monitoring plan, a site restoration and decommissioning plan, and an operations plan.

***The Project is designed to operate in compliance with applicable state and local laws and regulations:*** As discussed in Exhibits 31 and 32, the Project is designed and will operate in compliance with applicable state and local laws and regulations concerning, among other matters, the environment and public health and safety. There are no local laws that are unreasonably burdensome and the Applicant is not requesting any waivers.

## 2(f) Paper Copy Distribution

The Applicant has ensured that paper copies of major Project documents, except those subject to protective order, are publically filed at the designated local repositories. These locations include the Project Local Office, Canisteo Town Hall, Greenwood Town Hall, Troupsburg Town Hall, West Union Town Hall, Jasper Free Library, Jasper Town Hall, Hornell Public Library, Wimodaughasian Free Library, Hartsville Town Hall, Hornellsville Town Hall, City of Hornell Public Library, and Herrick Memorial Library.

## 2(g) Electronic Copy Distribution

Electronic copies of all major Project documents, except those subject to a protective order, can be accessed on the DPS online case record website and on [www.EightPointWind.com](http://www.EightPointWind.com).