Draft
Stipulations
Bluestone Wind Energy Facility

July 6, 2018

Table of Contents

Stipulation 1 – 1001.1 Exhibit 1: General Requirements 5
Stipulation 2 – 1001.2 Exhibit 2: Overview and Public Involvement 5
Stipulation 3 – 1001.3 Exhibit 3: Location of Facilities 7
Stipulation 4 – 1001.4 Exhibit 4: Land Use 7
Stipulation 5 – 1001.5 Exhibit 5: Electric System Effects 9
Stipulation 6 – 1001.6 Exhibit 6: Wind Power Facilities 10
Stipulation 7 – 1001.7 Exhibit 7: Natural Gas Power Facilities 11
Stipulation 8 – 1001.8 Exhibit 8: Electric System Production Modeling 11
Stipulation 9 – 1001.9 Exhibit 9: Alternatives 11
Stipulation 10 – 1001.10 Exhibit 10: Consistency with Energy Planning Objectives 12
Stipulation 11 – 1001.11 Exhibit 11: Preliminary Design Drawings 12
Stipulation 12– 1001.12 Exhibit 12: Construction 14
Stipulation 13– 1001.13 Exhibit 13: Real Property 15
Stipulation 14– 1001.14 Exhibit 14: Cost of Facilities 16
Stipulation 15– 1001.15 Exhibit 15: Public Health and Safety 16
Stipulation 16– 1001.16 Exhibit 16: Pollution Control Facilities 18
Stipulation 17– 1001.17 Exhibit 17: Air Emissions 18
Stipulation 18– 1001.18 Exhibit 18: Safety and Security 18
Stipulation 19– 1001.19 Exhibit 19: Noise and Vibration 19
Stipulation 20– 1001.20 Exhibit 20: Cultural Resources 29
Stipulation 21– 1001.21 Exhibit 21: Geology, Seismology, and Soils 29
Stipulation 22– 1001.22 Exhibit 22: Terrestrial Ecology and Wetlands 32
Stipulation 23– 1001.23 Exhibit 23: Water Resources and Aquatic Ecology 32
Stipulation 24 – 1001.24 Exhibit 24: Visual Impacts 46
Stipulation 25 – 1001.25 Exhibit 25: Effect on Transportation 51
Stipulation 26 – 1001.26 Exhibit 26: Effect on Communication 53
Stipulation 27 – 1001.27 Exhibit 27: Socioeconomic Effects 53
Stipulation 28 – 1001.28 Exhibit 28: Environmental Justice 54

Stipulation 29 – 1001.29 Exhibit 29: Site Restoration and Decommissioning 54
Stipulation 30 – 1001.30 Exhibit 30: Nuclear Facilities 54
Stipulation 31 – 1001.31 Exhibit 31: Local Laws and Ordinances 54
Stipulation 32 – 1001.32 Exhibit 32: State Laws and Regulations 60
Stipulation 33 – 1001.33 Exhibit 33: Other Applications and Filings 62
Stipulation 34 – 1001.34 Exhibit 34: Electric Interconnection 63
Stipulation 35 – 1001.35 Exhibit 35: Electric and Magnetic Fields 63
Stipulation 36 – 1001.36 Exhibit 36: Gas Interconnection 64
Stipulation 37 – 1001.37 Exhibit 37: Back-up Fuel 64
Stipulation 38 – 1001.38 Exhibit 38: Water Interconnection 64
Stipulation 39 – 1001.39 Exhibit 39: Wastewater Interconnection 65
Stipulation 40 – 1001.40 Exhibit 40: Telecommunications Interconnection 65
Stipulation 41 – 1001.41 Exhibit 41: Application to Modify or Build Adjacent 65

NEW YORK STATE BOARD ON ELECTRIC GENERATION
SITING AND THE ENVIRONMENT

IN THE MATTER OF:

Case No. 16-F-0268

Application by Bluestone Wind, LLC. for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 of the New York State Public Service Law for the Bluestone Wind Energy Facility in the Towns of Windsor and Sanford, Broome County

THE PARTIES HERETO stipulate and agree as follows:

1) The Bluestone Wind Energy Facility is discussed in an Article 10 Preliminary Scoping Statement ("PSS") submitted to the New York State Board on Electric Generation Siting and the Environmental ("Siting Board") on August 18, 2017 by Bluestone Wind, LLC. ("Applicant"). The term "Facility" as used herein includes up to 33 wind turbines, permanent meteorological towers, collection lines (buried and overhead), access roads, one operation and maintenance (O&M) building, collection and point of interconnection (POI) substations including battery storage, a short distance of overhead transmission line (non-Article VII), and temporary construction staging/laydown areas as well as any other improvements subject to the Siting Board's jurisdiction.

   These stipulations are governed by Section 163 of the Public Service Law and by any application requirements for federally delegated or approved environmental permits issued by the New York State Department of Environmental Conservation ("DEC" or "NYSDEC"), if applicable.

2) The Parties hereto may limit their concurrence to one or more of the specific subject area stipulations by so indicating in a notation next to their signature. A signature without any such notation shall indicate concurrence with the entire stipulation.

3) Those signing these stipulations agree that, as of the date hereof, the studies outlined herein constitute all the necessary studies concerning the subject matter of these stipulations that the Applicant must provide to satisfy Section 164(1) of the Public Service Law. Except as provided herein, and in accordance with 1000.5(k) the signatories agree not to request the Applicant to provide additional studies concerning the subject matter of these stipulations in connection with the Article 10 proceeding.

4) Under any of these following circumstances the Applicant agrees to perform additional studies, evaluations or analyses:

   a) A new statute, regulation or final, non-reviewable judicial, federal, state or administrative regulation, ruling or order is adopted subsequent to the date of these stipulations which necessitates such additional studies, evaluations or analyses;
   b) Bluestone Wind, LLC proposes a substantial modification to the Facility or other inputs to the stipulated studies, evaluations, or analyses that will materially affect the results of the studies, evaluations or analyses;
   c) The parties agree that the results of the stipulated studies, evaluations or analyses demonstrate a substantial need for additional or supplemental study, evaluation or analysis to the extent necessary to meet the requirements of the Article 10 regulations;
   d) New information is discovered during the course of conducting, or as a result of, the stipulated studies, evaluations or analyses that indicates further evaluation or analysis is needed to determine the potential impacts of the Facility or the appropriate minimization or mitigation measures;

e) New, material and relevant information obtained independently of the stipulated studies, evaluations, or analyses demonstrates that the conduct of such studies, evaluations or analyses, or their results, will be substantially affected and should be modified or expanded to the extent necessary to meet the requirements of the Article 10 regulations; or

f) The Chairman of the Siting Board, the Siting Board, or the Presiding Examiner, whose ruling will be appealable to the Siting Board, or Associate Examiner presiding with respect to any proceedings concerning federally delegated environmental permits to be issued by New York State DEC, whose ruling will be appealable to the Commissioner of the DEC or the Siting Board, as the case may be, requires an additional study, evaluation, or analysis pursuant to 16 N.Y.C.R.R. § 1000.9.

5) After the Chairman of the Siting Board determines that the Application complies with Section 164 of the Public Service Law, if the signatories, in any of the circumstances listed above, reach agreement as to the implementation of any additional studies, evaluations, or analyses, such agreement may be set forth in a new stipulation, which may include the agreement of the Applicant to extend the statutory deadline for completion of the certification proceeding, but only if and only to the extent necessary to provide sufficient time to permit any such studies, evaluations, or analyses to be conducted and reviewed. Any of the signatories, in the circumstances listed in paragraph 4 shall not be restricted from pleading that the Applicant must provide additional studies evaluations or analyses related thereto during the Article 10 proceeding regarding the subject matter of these regulations.

6) Geographic Information System (GIS) shapefiles used in development of the Application will be provided to requesting parties involved in the Stipulations process, to support the information and analyses in the Application. GIS shapefiles of all Project and resource locational information, including, but not limited to the GIS Data outlined in Exhibit's 22 and 23, (including analytic results, e.g., areas of turbine visibility; sound level contours) will be provided directly to DPS and DEC Staff on CD-ROM along with paper copies of the Application.

7) The Parties agree that the studies conducted for the Facility and information provided in the Application regarding potential impacts will be limited to New York State and New York State resources unless specifically agreed to in these stipulations.

Stipulation 1 – 1001.1 Exhibit 1: General Requirements

1. The Applicant agrees to provide the information required by 1001.1.
2. The Application will provide a list of acronyms used throughout the Application as an appendix to the Table of Contents.

Stipulation 2 – 1001.2 Exhibit 2: Overview and Public Involvement

a) 1001.2(a) shall contain a brief description of the major components of the Project, including all proposed turbine locations and the footprint of all other Project components. The Applicant agrees that the major components of the Facility, are to be described as follows:

- Facility: Up to 33 wind turbines, access roads, permanent meteorological towers, collection lines (buried and overhead), collection and POI substations including battery storage, a short distance of overhead transmission line (non-Article VII), staging/laydown areas, batch plant (if applicable), and operations and maintenance building. The specific location of all Facility components will be identified in the Application. The final turbine model selected may be one of those provided in the Application or may be similar to those analyzed in the Application.

- Facility Site: The parcels proposed to host the Facility components, which will be identified in the Application.
- Facility Area: The general area of interest identified by the Applicant and depicted on Figures 1 and 2 of the Preliminary Scoping Statement (PSS).
- Off-site Ancillary Features: Limited to temporary public road improvements located within the Facility Area.

b) The Parties agree that a detailed table, which will provide a brief summary of all applicable exhibits required under Part 1001 following the Table of Contents for the Application will satisfy the requirements of 1001.2(b).

c) 1001.2(c) will contain a brief description of the public involvement program (PIP) plan conducted by the Applicant prior to submission of the Application and an identification of significant issues raised by the public and affected agencies during such program and the response of the Applicant to those issues including a summary of changes made to the proposal (if any) as a result of the public involvement program. Specific components of the PIP conducted to date and the topics addressed will be discussed, including: opportunities for public involvement; development and use of stakeholder list (including host and adjacent landowners); the Applicant's efforts relating to language access; identification of any environmental justice areas; the use of document repositories; consultation with affected agencies and stakeholders; factsheets on the Article 10 process and intervenor funding and other outreach materials; use of meeting logs tracking PIP activities, significant questions and/or issues raised by the public and the Applicant's response or follow-up action; and the establishment of a Project website, toll-free phone number and, if applicable, local project office.

The Application will include a statement indicating that paper copies of all major documents (e.g., PIP, PSS, Article 10 Application), except those subject to protective order, are properly filed at the designated local repositories as identified in the PIP. Further, the Applicant will ensure that electronic copies of all major documents, except those subject to protective order, are properly filed on the designated website.

d) The Applicant agrees to provide the information required by 1001.2(d). Specifically, the Application will include:
- A brief description of the public involvement program to be conducted by the Applicant after submission of the Application, such as hearings, notification of construction activities, complaint resolution procedures, etc.
- An updated stakeholder list that will be appended to the Application, including host and adjacent landowners and additional stakeholders identified through the public outreach process
- A discussion of how stakeholders have been identified and subsequently added to the list during the scoping, stipulation, and public involvement processes, and a description of how the list will be used for distribution and notification regarding Project milestones, including submittal of the Application
- In addition to notifications required under 16 NYCRR 1000.6 and 1000.7, the Applicant will mail notice of the Application submittal to a 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. A copy of the mailing list and documentation indicating the dates and mailings that were made will be provided to the Secretary.
- In addition to newspaper publication as required under 16 NYCRR 1000.7(a), the Applicant will publish notification about the project in at least one free local community newspaper circulated in the project and study areas, if available.

e) The Applicant agrees to provide the information required by 1001.2(e).

Stipulation 3 – 1001.3 Exhibit 3: Location of Facilities

Exhibit 3 shall contain maps, drawings and explanations showing the location of the proposed Facility, including all interconnections, and all ancillary features such as roads, which together comprise the proposed Major Electric Generating Facility, in relation to municipalities (county, city, town and village) and taxing jurisdictions associated with any part of the overall development proposal. Such maps, drawings and explanations shall include:

a) Most recent edition (i.e. 2016) United States Geological Survey (USGS) 1:24,000 topographic quadrangles printed at full scale (obtained through the digital USGS Topo Map Service) showing:

    1) The information required by 1001.3(a)(1); plus location of temporary project met towers. With respect to alternatives, the mapping will depict those alternatives as defined at Stipulation 9(c).
    2) The Applicant agrees to provide the information required by 1001.3(a)(2)
    3) The Applicant agrees to provide the information required by 1001.3(a)(3)
    4) The Parties agree that section 1001.3(a)(4) is not applicable to the Facility.
    5) The Facility will be subject to a number of studies in support of the Application. The various studies undertaken in support of the Application will apply appropriate, resource-specific study areas, which will be described in this section of the Application along with a reference to the exhibit in which more information is provided.

b) The Applicant agrees to provide the information required by 1001.3(b). With respect to alternative locations, the mapping will not depict alternative locations because as indicated below in Stipulation 9(b), alternative locations that include areas beyond what is owned by or under option to the Applicant are unavailable. In addition to these maps, Applicant will also provide the latitude, longitude, and ground surface elevation, based on publicly available data, of all proposed turbines and meteorological towers, measured in feet above sea level.

c) The Applicant agrees to provide the information required by 1001.3(c).

Stipulation 4 – 1001.4 Exhibit 4: Land Use

Exhibit 4 shall contain the following information:

Maps submitted in support of Exhibit 4 will include the Facility Layout.

a) 1001.4(a) shall include:

- A map of existing land use within a 5-mile radius of the Facility. Land use will be depicted using the three-digit classification codes of the New York Office of Real Property Services (NYSORPS), which are included in parcel data obtained from Broome County. To the extent the Facility Site includes “vacant land” classifications, the Applicant will provide additional information on the existing use of such

land based on consultations with the respective landowners or municipal officials. A separate map of properties subject to NYS 480-a forest management programs located within the Facility Site, enrolled in NYS Agricultural Districts, conservation programs, or similar long-term program enrollments within or adjoining the Facility site will be included in the Application.

b) The Applicant agrees to provide mapping of existing overhead and underground major transmission facilities for electric, gas or telecommunications as directed by DPS Staff within a 5-mile radius of all Facility components, based on coordination with local utilities and facilities owners/operators, private firms that maintain databases with this information, and data on natural gas, oil wells, and mines obtained from the DEC and DPS, and to the extent that such information is made available to the Applicant. Any known crossing or co-location with existing electric transmission or gas collection or transmission facilities by proposed electric cables within the Facility Site will be shown on this mapping.
c) The Applicant agrees to provide mapping of tax parcels within 2,000 feet of wind turbines or other proposed Facility components. In addition, any publicly known proposed land use plans, including pipelines or other energy infrastructure projects, for any of these parcels will be mapped using data from the Broome County Real Property Department or the host Towns.
d) 1001.4(d) shall include:

- Mapping depicting existing and proposed zoning districts within a 5–mile radius of the Facility, based on data obtained from local governments.
- The Applicant will review zoning regulations for each of the towns where Facility components would be located, and will provide a description of permitted and prohibited uses within each zone.

e) The Applicant agrees to provide a review of the Town of Windsor Comprehensive Plan (adopted 2006 as amended in 2015), Town of Sanford Comprehensive Plan (adopted 1992) and Broome County Comprehensive Plan (adopted 2013), and the consistency of the proposed Facility with such plans will be assessed.
f) The Applicant agrees to provide the information required by 1001.4(f), including the location of known gas wells and permitted bluestone mines based on publicly available information.
g) The Applicant agrees to provide the information required by 1001.4(g), where identified items are applicable.
h) The Applicant agrees to provide the information required by 1001.4(h), which shall include:
    - An assessment of the compatibility of the Facility with initiatives identified in the 2016 NYS Open Space Conservation Plan, including various Priority projects for Region 7 – Central New York.
    - The Facility's Visual Impact Assessment (as will be presented in Exhibit 24) will also identify visually sensitive resources, including recreational and other sensitive land uses that may be affected by potential visibility of the Facility. This will include visually sensitive resources of potential statewide significance within 10 miles of the proposed Facility, and potentially significant resources within a 5-mile visual study area.
    - The Facility's Noise Impact Analysis (NIA) (as will be presented in Exhibit 19) will also identify sensitive sound receptors.
    - The Application will include a description of land leases and the affects (or lack thereof) to future gas development.

i) The Applicant agrees to provide the information required by 1001.4(i), based on consultation with the host communities and including relevant State planning documents such as the 2011 Broome County Intermunicipal

Waterfront Public Access Plan; the 2016 New York Open Space Conservation Plan; the New York State Historic Preservation Plan 2015-2020; the Statewide Comprehensive Outdoor Recreation Plan 2014-2019; the New York State Office of Parks, Recreation and Historic Preservation Sustainability Plan; and the Southern Tier Upstate Revitalization Plan (2015) adopted by the Southern Tier Regional Economic Development Council. The Application will include a review of each of the above plans, and will provide electronic versions/links to such plans (limited to those portions of the plans obtained by/provided to the Applicant). The Application will also discuss whether the proposed Facility is consistent with these Plans.

j) An assessment of compatibility of any above-ground collection lines with existing and proposed land uses within 300 feet of the interconnect lines will be presented in the Application. To the extent land use impact is quantified in other exhibits (e.g., agricultural land, wetlands, forest) such information will be summarized in this subpart.

k) The Applicant agrees to provide the information required by 1001.4(k)

l) The Facility Area is not located within a designated coastal area or in direct proximity of a designated inland waterway. Therefore, conformance with the Coastal Zone Management Act or the Waterfront Revitalization of Coastal Areas and Inland Waterways Act are not applicable.

m) The Applicant agrees to provide aerial photographs within a 1-mile radius of the Facility will be included with the Application. This mapping will likely be prepared using 0.5-meter resolution natural color orthoimagery from the USDA's National Agriculture Imagery Program (NAIP) captured during the 2015 growing season. The aerial photograph mapping will be depicted on multiple 8.5x11inch or 11x17inch sheets at a scale that will allow the identification and discrimination of natural and cultural features.

n) The Applicant agrees to provide mapping depicting Facility components overlaid on aerial photographs, along with the proposed limits of vegetation and soils disturbance. These maps will be created using ArcGIS software. Line symbols will be used to depict the centerlines of proposed access roads and electrical collection lines; point symbols to depict turbine and permanent meteorological tower locations; and polygon symbols to depict the substation, operation and maintenance buildings, and construction laydown areas. Buffers around each Facility component will show the limits of clearing and disturbance required (e.g., 20-foot permanent width and 50-foot temporary width for access roads). This mapping will likely be prepared using 0.5-meter resolution natural color orthoimagery from the USDA's NAIP captured during the 2015 growing season. Since the Application will be filed in 2018, three years after these aerials images were captured, the Applicant will identify major discrepancies (i.e., new buildings, land uses, etc.) in the 2015 aerial photographs. Discrepancies will be identified in the Application and shown on more recent aerial imagery (e.g., 2017 1-meter NAIP). These discrepancies will be described in the Application.

o) It is anticipated that mapping associated with (n) above will be prepared using either using 0.5-meter resolution natural color orthoimagery from the USDA's NAIP captured during the 2015 growing season. The ultimate source will be identified in the Application.

p) The Applicant agrees to provide the information required by 1001.4(p). Sources of information used to describe community character will include local community master plans, and county master plans, among other sources. The Application will include a literature review of existing peer reviewed articles, technical journals, and papers prepared by government agencies related to the potential effects of wind energy projects on nearby property values.

Stipulation 5 – 1001.5 Exhibit 5: Electric System Effects

Exhibit 5 shall contain the following information:

a) The Applicant agrees to provide the information required by 1001.5(a).
b) The Applicant agrees to provide an analysis and/or statement of the impact of the proposed Facility on reliability in the state of New York as evaluated in the System Reliability Impact Study (SRIS). The SRIS will be submitted and filed under separate confidential cover pursuant to Section 87(2)(d) of the New York State Public Officers Law and the Commission's regulations and 16 NYCRR 6-1.4.
c) The Applicant agrees to provide a discussion of the impacts of the Facility on ancillary services as evaluated in the SRIS.
d) The Applicant agrees to provide a summary of reasonable alternatives that would mitigate adverse reliability impacts (if such impacts are found to be possible) as evaluated in the SRIS.
e) The Applicant agrees to provide an estimate of the increase or decrease in the total transfer capacity across each affected interface based on analysis in the SRIS, including an evaluation of reasonable corrective measures if transfer capabilities are affected and require mitigation.
f) The Applicant agrees to provide the information required by 1001.5(f), including a discussion of Facility maintenance and potential impacts which may arise during operation.
g) There is no thermal component to the Facility, and therefore the parties agree that the information required by 1001.5(g) is not applicable and will not be addressed in the Application.
h) The Applicant agrees to provide the information required by 1001.5(h).
i) The Applicant agrees to provide the information required by 1001.5(i).
j) The Applicant agrees to provide the information required by 1001.5(j).
k) The Applicant agrees to provide the information required by 1001.5(k).
l) The Applicant agrees to provide the information required by 1001.5(l).
m) Wind energy facilities, such as the proposed Facility, are not suitable for blackstart because there is no guarantee that wind would be blowing at sufficient speed. Therefore, the parties agree that the Application will not address blackstart.
n) The information required by 1001.5(n) will be provided through the SRIS, the development of which included consultation with NYISO and the local transmission owner.

Stipulation 6 – 1001.6 Exhibit 6: Wind Power Facilities

The Applicant agrees to provide the information required by 1001.6:

a) Including a summary table of setback recommendations and requirements, explaining the rationale for the setback distances, including definitions of terminology from local ordinances in relation to the information provided in Exhibit 6. Additionally, the Applicant will consult with turbine manufacturer's regarding setback recommendations for developing layout and siting of turbines. The Applicant shall consider such recommendations and report the results of consultation with manufacturer(s).
b) Identification of and explanations for instances where the Applicant's proposal does not conform to municipal setback requirements and/or the Applicant's proposed setbacks; and
c) Example type certification (in accordance with International Electrotechnical Commission (IEC) 61400) associated with at least one of the turbines (or its predecessor) under consideration for the Facility.
d) A table will be provided in the Application for turbine models under consideration showing each wind turbine class with corresponding information on the suitability of the turbines for use in conditions typical of the Facility Area, such as weather extremes, average wind speed, wind gusts and turbulence intensity.

Stipulation 7 – 1001.7 Exhibit 7: Natural Gas Power Facilities

Exhibit 7: Natural Gas Power Facilities is not applicable to the Facility.

Stipulation 8 – 1001.8 Exhibit 8: Electric System Production Modeling

The Applicant agrees to provide the information required by 1001.8.

Stipulation 9 – 1001.9 Exhibit 9: Alternatives

Exhibit 9 shall contain the following information:

a) An identification and description of reasonable and available alternate location sites for the proposed Facility that will necessarily be limited to sites owned by or under option to Applicant or its affiliates, as authorized by 16 NYCRR § 1001.9(a).
b) As indicated in subdivision (a), alternative locations that include areas beyond what is owned by or under option to the Applicant are unavailable. Further, it is not practicable to procure land contracts, perform environmental and engineering studies, enter into and progress through multiple interconnection permit processes, and conduct community outreach for alternative Project locations. Therefore, the parties agree that the Application will not include a fully developed evaluation of comparative advantages and disadvantages of alternate locations. However, the general site selection process and relevant information/analyses associated with the Facility will be provided in relation to Exhibit 9(b)(1) through (11).
c) The Applicant's private landowner agreements strictly limit the use of land to a wind power project, and as such, do not allow the Applicant to site other alternative energy production facilities (e.g., solar). Accordingly, the parties agree that other power generation technologies are not reasonable alternatives and will not be considered in the Application. Rather, 1001.9(c) of the Application will provide information on the Facility design and technology including:

    1) The general arrangement and design (detailed information regarding the arrangement and design of the Facility will be provided in Exhibit 3 as described above and required by 1001.3).
    2) Wind turbine technology and alternate turbine models.
    3) Alternate scale and magnitude of the facilities in the context of the interconnection position (i.e., maximum generating capacity of up to 124 MW) and information on the economic benefits to local communities related to Facility scale and magnitude.
    4) A discussion of the final, maximum number of turbines that could be constructed based on siting factors (including setbacks) and identification of the position of all potential turbine locations, as well as an alternate layout in the study area. The discussion will include examples of the number of turbines to be constructed depending on the turbine model selected. Additionally, this section of the Application will address the environmental impacts (i.e., impacts to vegetation, wetlands and streams) of the following alternative layouts:
        i) Alternative layout within the Facility Area, including a layout with additional turbines and layouts to (a) avoid or (b) minimize adverse impacts to environmental resources (e.g., mapped wetlands, forest areas), and (c) achieve conformance, to the degree achievable, with local laws and related standards, if the Applicant proposes to have any local laws related to layout design (i.e. setbacks) waived by the

Board as unreasonably burdensome in the Application.

5) The Applicant agrees to provide the information required by 1001.9(c)(5).

d) The Applicant agrees to provide the information required by 1001.9(d).
e) The Applicant agrees to provide the information required by 1001.9(e).
f) The Applicant agrees to provide the information required by 1001.9(f). The parties agree that the "no action/no build" alternative refers to not building the Facility.
g) The Applicant agrees to provide the information required by 1001.9(g).
h) Due to the nature of the Facility (wind energy), the parties agree that source and demand-reducing alternatives will not be evaluated in the Application.
i) The Applicant agrees to provide the information required by 1001.9(i).

Stipulation 10 – 1001.10 Exhibit 10: Consistency with Energy Planning Objectives

The Applicant agrees to provide the information required by 1001.10, including reference to the 2015 State Energy Plan and an explanation on consistency with the adopted New York State Clean Energy Standard.

Stipulation 11 – 1001.11 Exhibit 11: Preliminary Design Drawings

All drawings prepared in support of Exhibit 11 of the Article 10 Application will be prepared using computer software (e.g., AutoCAD, MicroStation), will be labeled "preliminary" and/or "not for construction purposes", and will be prepared under the direction of a professional engineer, landscape architect, or architect who is licensed and registered in New York State. Four, full size copies of the drawing set, utilizing a common engineering scale, will be provided to DPS Staff. A single, full size drawing set will also be provided to the NYSDEC Central Office Division of Environmental Permits and NYSDEC Region 7 Fish and Wildlife Staff (total of two full sized sets). A single, full size drawing set will be provided to the Towns upon request. All other printed copies (included with the Application) will be at a legible and reduced size (i.e., 11"x17"), also utilizing a common engineering scale (for example: 1"=60'; 1"=100;: or 1"=200'). Attachment 1, *Map Sizes and Scales* contains a list of typical wind farm drawings and includes entries of extent limits, engineering scales, and proposed drawing paper sizes for each listed corresponding drawing. Additionally, a CD-ROM containing electronic PDF files will be submitted to DPS Staff.

Exhibit 11 shall contain:

a) Site plan drawings of all Facility components at a common engineering scale (e.g., 1" = 100') as listed at 1001.11(a). Adjoining property will be depicted using publicly available data. The drawings will also depict all delineated wetlands (including NYS-regulated wetlands and 100-foot adjacent areas) and streams. Specific to wind farm construction, the Site Plan drawings will include the following features:

- Access road (temporary and permanent);
- Turbine foundations, tower outline, and crane pads;
- An illustration of the various setbacks from each turbine to other features based on the Applicant's proposed setbacks (including setback requirements listed in table 6(a)) and local laws and ordinances (a stand-alone turbine setback layout plan may be submitted instead to improve clarity of information).

- Turn-around areas (if needed) to be used during turbine deliveries;
- Proposed grading (temporary grading for construction purposes and approximate final contours);
- Electric collection lines – the required number of circuits for each collection line route will be indicated on site plans; also, overhead and underground cable routes will be differentiated with specific line-types;
- Limits of disturbance for all project components (turbines, access roads, buildings, electric lines, substation, etc.);
- Vegetation type and clearing limits for all project components (turbines, access roads, buildings, electric lines, etc.);
- Indication of all permanent right-of-way (ROW) for all electric cable installations;
- Proposed locations of any horizontal directional drilling for buried collection line (including laydown area and approximate lengths of trenchless installations);
- Project substation outline, including access driveway, property setbacks, battery storage, and fence-line;
- Outline of concrete batch plant (if necessary), including access way(s), property setbacks, and parking areas;
- Overhead and underground electric collection and transmission (if any) lines;
- Existing utility equipment locations and easement lines of those existing utilities including electric and gas transmission or distribution lines, cable and telecommunication lines, and any other utilities in relation to proposed Project Facilities locations;
- O&M Building, including any diagrammatic location of proposed utility connections including septic system(s), water supply system(s), etc., and access way(s), property setbacks, and parking area;
- Permanent meteorological towers;
- Laydown, staging and equipment storage areas including associated access way(s) and parking areas;
- Back-up generators and fuel storage areas (if needed); and
- Outline of the proposed switchyard, and any proposed energy storage or other ancillary facilities, including access way, property setbacks, and fence line.

b) The Applicant agrees to provide the information required by 1001.11(b).

c) Soil type and depth to bedrock information will be provided based on publicly available data. Preliminary cut and fill calculations will be included along with a general description of typical cut and fill scenarios. Existing and proposed contours and permanent stormwater retention areas (if needed and known at the time of Application submittal) will be shown on the Preliminary Design Drawings.

d) Based on the proposed Facility layout and the results of various analyses, the Application will discuss the need for landscaping in the form of visual screening, and prepare conceptual screening plans if needed in consultation with the Towns. Tree and vegetation clearing shall be limited to the minimum necessary for Facility construction. To determine those areas where trees may be removed, the Facility footprint will be depicted on recent aerial imagery, and the acreage of tree removal will be discussed in the Application. However, an on-site inventory and survey of all trees to be removed will not be included in the Application.

e) Lighting specifications for FAA lights on turbines and typical lights to be used at the substations and O&M facility. Manufacturer cut sheets for facility lighting will also be provided, as available to the Applicant.

f) 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 substation and battery storage will be

included. Heights above grade will be indicated on appropriate drawings of all proposed structures (including buildings, substations, battery storage, etc.). For the point of interconnection, a typical drawing of the improvements to the existing interconnection substation will be included.

g) The Application/Preliminary Design Drawings will include typical details for Facility components including access roads, buried and above-ground interconnect lines, wind turbines, wind turbine foundations, and turbine laydown areas. Drawings for the proposed wind turbine foundation(s) will include a typical preliminary plan, elevation, section, and details. The details will depict the typical type(s) of foundation(s), dimensions, reinforcement layout, and general details and arrangements of the flange assembly and embedment ring. Information regarding design codes will be included along with information pertaining to typical steel and concrete (compressive strength, volume, weight, etc.) to be used for turbine foundation construction.
    i. Plan and sections of underground facilities will be provided for the proposed layout scheme, including single and multiple-circuit layouts with dimensions of proposed depth and level of cover, separation requirements between circuits, clearing width limits for construction and operation of the Facility, limits of disturbance, and required permanent ROW.
    ii. The Application will include elevation plans for overhead facilities (collection and transmission lines) including height above grade, structure layouts, clearing width limits for construction and operation of the Facility, and permanent ROW widths, average span lengths for each proposed layout, and structure separation requirements (for installations containing more than one pole, etc.) for all single and multiple-circuit layouts.
    iii. This section of the Application will include typical details associated with horizontal directional drilling (HDD) staging area/bore pits, and will also include information on the need for an on-site concrete batch plant, including a typical plan layout and approximate location. If 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.
    iv. In addition, the Application will include technical and safety manuals associated with the range of turbine types anticipated to be used for the Facility to the extent available. These manuals are available for certain turbines to be presented in the Application, but may not be available for all turbines. Descriptions and specifications of wind turbine towers and blades will also be provided to the extent they are included in these manuals.

h) A single line drawing of the existing interconnection substation Facility from the SRIS will be provided. However, the Facilities study will not be completed until post-certification.

i) A list of engineering codes, standards, guidelines and practices that the Applicant intends to conform with when planning, designing, constructing, operating and maintaining the Facility.

j) Details and descriptions of any protective measures (if any) for Facility components within or adjacent to “Flood Hazard Areas” will be included in the Application. If this information is not available during Application filing, a description of potential measures to be utilized will be included.

Stipulation 12– 1001.12 Exhibit 12: Construction

a) The Applicant agrees to provide the information required by 1001.12(a), which will include a discussion of the Applicant’s proposed environmental compliance monitoring plan (e.g., duties of the monitor(s) and reporting responsibilities) and a description of how the Applicant will ensure conformance with applicable design, engineering, and installation standards, including construction codes applicable to the wind turbine structures.

The Applicant will include a Preliminary Quality Assurance and Control Plan and will describe the procedures it will follow to notify the public regarding construction activities, schedule and applicable safety and security measures.

b) The Applicant agrees to provide the information required by 1001.12(b).

c) The Applicant agrees to provide the information required by 1001.12(c). In this section, the Application will include results of consultations with utility owners and will include a list of any utility owner criteria regarding crossing of or installations nearby existing utilities; specific criteria will be presented including descriptions of potential studies to be performed (along with an indication of timing) (if needed), specific separation requirements or recommendations of utility owners (including electric and communications facilities, gas well and pipeline owners) and descriptions and typical details of any protective separation criteria, design measures and features to be applied at crossings of or co-located with existing utilities, etc.

d) The Applicant will prepare a formal complaint resolution plan in consultation with the Towns which includes specification of commitments for addressing public complaints, and procedures for dispute resolution during Project construction and operation and reporting to the Towns. The Complaint Resolution Plan will include steps for informing the public about the complaint plan and the process to file a complaint (i.e. written, electronic and oral). The Plan will describe the complaint process from time of receipt, verification, resolution development, implementation and confirmation of resolution, including anticipated timeframes and actions the Applicant will take if the complaint remains unresolved after these steps are taken. The Plan should identify and include any procedures or protocols that may be unique to each phase of the project (e.g. construction, operation, decommissioning) or complaint type (e.g. noise, degraded television service). The Applicant will maintain a complaint log listing all complaints and resolutions during construction and operations of the Project and the Plan will include a procedure for review and transmittal of the complaint log to DPS Staff.

Stipulation 13– 1001.13 Exhibit 13: Real Property

Exhibit 13 shall contain the following information:

a) A tax parcel map of the Facility Site which depicts the proposed facilities arrangement in relation to the following:

- The tax parcel IDs for land parcels that are part of the Facility;
- Current land use and zoning for the parcels that are part of the Facility;
- Necessary access and utility easements for the Facility;
- Proposed laydown area(s) and O&M building; and
- Public roads planned for use as access to the Facility Site.

The data for this map will be obtained from the Broome County Real Property GIS (parcels) along with the United States Census Bureau (TIGER/line files) and the NYS GIS Clearinghouse. These data will also be used to identify owners of record of all parcels included within the Facility Site and for all adjacent properties (such information may be depicted on the maps and/or included on associated tables).

b) Maps showing all proposed interconnection facilities and associated access drives/laydown areas, including land owned by or under contract to the Applicant.

c) The Applicant agrees to provide the information required by 1001.13(c).

d) The Applicant agrees to provide the information required by 1001.13(d)

e) An identification of any improvement district extensions necessary, if applicable.

Stipulation 14– 1001.14 Exhibit 14: Cost of Facilities

a) 1001.14(a) shall contain an estimate of the total capital costs of the Facility as presented in the Application. Specific to turbine costs, the turbine model cost will be an estimate of the average cost of turbine models presented in the Application based on turbine model cost information available to the Applicant at the time of Application submission. Capital costs include development costs, construction design and planning, equipment costs, and construction costs, and will be categorized as follows:

    - Turbines
    - Engineering
    - Construction (including contingency)
    - Insurance
    - Development (including contingency)

    However, this information is proprietary and typically retained as trade secret. Therefore, the Applicant will seek the requisite trade secret protection for this information pursuant to NY Public Officer's Law Section 87(2)(d) and 16 NYCRR 6-1.3.
b) A cost estimate based on the Applicant's historical experience, historical and current price quotes, and wind industry standards.
c) If requested by DPS, the Applicant will provide internal work paper that describes the assumptions in estimating the total capital costs as described in 1001.14 (a). However, this information is proprietary and typically retained as trade secret. Therefore, the Applicant will seek the requisite trade secret protection for this information pursuant to NY Public Officer's Law Section 87(2)(d) and 16 NYCRR 6-1.3.

Stipulation 15– 1001.15 Exhibit 15: Public Health and Safety

The Application will include a statement and evaluation that identifies, describes, and discusses all potential significant adverse impacts of the construction and operation of the facility, the interconnections, and related facilities on the environment, public health, and safety, at a level of detail that reflects the severity of the impacts and the reasonable likelihood of their occurrence, identifies the current applicable statutory and regulatory framework. To address those topics, Exhibit 15 shall contain:

a) The Applicant agrees to provide the information required by 1001.15(a), including a description of potential wood waste resulting from clearing. If the Facility will have on-site wastewater treatment, the Applicant will consult NYSDOH's Broome County District Office regarding any potential approvals required for any on-site treatment of wastewater or sanitary waters, and that information will be included in the Application.
b) The Applicant agrees to provide the information required by 1001.15(b).
c) The Applicant agrees to provide the information required by 1001.15(c).
d) The Applicant agrees to provide the information required by 1001.15(d).
e) With respect to short-term (construction) and long-term (O&M) worker safety, the Applicant will coordinate with local emergency response providers and develop a comprehensive Emergency Action Plan (EAP) in accordance with the Applicant's O&M Safety Policies and OSHA regulations. This information will be included in the Article 10 Application. With respect to uses of properties adjacent to the Facility Site, this will be addressed in the context of appropriate setbacks from non-participating properties/areas, and the likelihood of public health and safety impacts in relation to appropriate setbacks. Based on this, Exhibit 15(e) will include an analysis of wind

power facility impacts and, to the extent possible, should be relevant and specific to the type, size and dimensions of the Facility including:

- A literature review of peer reviewed articles, technical journals, and papers prepared by government agencies to identify potential public health and safety impacts including those associated with potential blade throw and tower collapse, along with a discussion of manufacturer recommendations.
- A literature review of peer reviewed scientific journals and publications prepared by and for government institutions of countries that are part of the World Health Organization of the potential for adverse impacts and health effects from noise, including audible noise, low frequency noise and infrasound, and shadow flicker will be conducted, including issues such as sleep disturbance, annoyance, hearing damage, interference with speech, and other potential health impacts. This will include a discussion of the results of potential sound impacts on sound sensitive receptors identified in Stipulation 19.
- A description of the potential adverse effects of shadow flicker, based on the analysis to be conducted and
- provided in detail in Exhibit 24, including a literature review and discussion of shadow flicker impacts, typical frequencies from turbines at windfarms and photosensitive epilepsy. The shadow flicker report will be referenced in Exhibit 15 and describe potential long-term and short-term shadow flicker impacts on flicker sensitive receptors identified in Stipulation 24, at a level of detail that reflects the magnitude, severity and reasonable likelihood of occurrence of impacts.
- For identifying limitations of future public and private uses, the noise contour maps will be prepared as stated in Stipulation 19. A general discussion of potential effects to future uses will be included in the Application.
- A summary of literature review to identify potential public health and safety concerns associated with ice throw.
- A literature review of peer reviewed articles, technical journals, and papers prepared by government agencies to identify potential adverse public health effects of shadow flicker. The Application will also include a summary of a summary of potential impacts based on a Shadow Flicker Report to be appended to the Application. See Stipulation 24(a)(9) for additional information on shadow flicker methodology.

The Application will include, among others, the review of the following references:

i) Guidelines for Community Noise WHO (1999);
ii) Night Noise Guidelines for Europe, WHO 2009;
iii) Review of the evidence on the response to amplitude modulation from wind turbines. Phase 2 Report. Department for Business, Energy and Industrial Strategy. U.K. Commissioned by the Department of Energy & Climate Change (DECC). United Kingdom. August 2016;
iv) "Best Practices Guidelines for Assessing Sound Emissions from Proposed Wind Farms and Measuring the Performance of Completed Projects," October 13, 2011. Prepared for: The Minnesota Public Utilities Commission Under the auspices of the National Association of Regulatory Utility Commissioners (NARUC), Washington, DC. (for complaint potential and annoyance);
v) Wind Energy & Wind Park Siting and Zoning Best Practices and Guidance for States, January 2012. Prepared for: The Minnesota Public Utilities Commission Under the auspices of the National Association of Regulatory Utility Commissioners (NARUC), Washington, DC;
vi) Annex D of ANSI standard S12.9 -2005/Part 4 (Sounds with strong low-frequency content) for minimization of annoyance from low frequency sound;

vii) ANSI/ASA S2.71-1983 (R August 6, 2012) Guide to Evaluation of Human Exposure to Vibration in Buildings; and
viii) OSHA Standards for Hearing loss for Facility workers during work shifts

f) Public health and safety-related maps as described in 1001.15(f) will be prepared using data from the NYS GIS Clearinghouse, FEMA, local municipalities, NYSDEC, NYSDOH, and the USGS, as well as local sources for emergency response resources, including the Broome County GIS website.
g) The Applicant agrees to provide the information required by 1001.15(g).
h) The Applicant agrees to provide the information required by 1001.15(h).
i) The Applicant agrees to provide the information required by 1001.15(i).
j) The Applicant agrees to provide the information required by 1001.15(j).
k) The Applicant agrees to provide the information required by 1001.15(k).
l) The Applicant agrees to provide the information required by 1001.15(l), including a description of the Applicant's proposed compliance monitoring programs.

Stipulation 16– 1001.16 Exhibit 16: Pollution Control Facilities

Exhibit 16: Pollution Control Facilities is not applicable to the Facility and therefore will not be included in the Application. To the extent temporary emissions sources are needed during construction this will be addressed in Exhibit 17 of the Application. Please see Stipulation 23(c)(1) for information on the SPDES General Permit for construction.

Stipulation 17– 1001.17 Exhibit 17: Air Emissions

Exhibit 17 shall contain:

A discussion of the anticipated air related benefits from the Facility. The Application will also discuss impacts to air quality expected to result from the proposed Facility's construction and operation, including fugitive dust and emissions from construction vehicles, on-site concrete batch plant, and fuel-fired generators, and identification of appropriate control and mitigation measures to minimize adverse impacts. The Application shall identify any air permitting and registration requirements.

Stipulation 18– 1001.18 Exhibit 18: Safety and Security

The Applicant agrees to provide the information required by 1001.18, including a description of any consultation with relevant stakeholders and local communities, first responders, and emergency service providers regarding construction start dates and the safety plans (i.e., Emergency Action Plan, Site Security Plan). The Application will include a summary of safety procedures related to the proposed battery storage at the POI substation based on available materials from the potential battery manufacturer. The Applicant should identify any necessary signage for Facility areas to help prevent unauthorized access or warnings of potential hazards.

Stipulation 19– 1001.19 Exhibit 19: Noise and Vibration

Exhibit 19 shall contain a study of the potential noise impacts of the construction and operation of the Facility. The study will include the wind turbines, related facilities and ancillary equipment. Exhibit 19 will include:

a) A map of the study area in digital format showing the location of sensitive receptors within the Facility Site and one-mile of the Facility boundaries, in relation to the proposed Facility, related proposed facilities and proposed ancillary equipment (including any related substations). Sensitive receptors identified will include residences (including participating, non-participating, full-time, and seasonal), outdoor public facilities and areas, schools, hospitals, care centers, libraries, places of worship, cemeteries, public parks, public campgrounds, summer camps (e.g., YMCA Camp Tuscarora), and any historic resources listed or eligible for listing on the State or National Register of Historic Places, and Federal and New York State lands, if any.
b) Seasonal receptors will include, at a minimum, cabins and hunting camps, identified by property tax codes and any other seasonal residences with septic systems/running water. An evaluation of ambient pre-construction baseline noise conditions will be included in the Article 10 Application.
    1) Will include A-weighted/dBA sound levels and prominent discrete (pure) tones, at representative potentially impacted noise receptors using actual measurement data recorded in winter and summer and during day and night as a function of time and frequency (1/3 octave bands from 20 Hz. up to 10,000 Hz.) using a suitable and suitably calibrated sound level meter (SLM) and octave band frequency spectrum analyzer or similar equipment.
    2) The ambient pre-construction baseline sound level will be filtered to exclude seasonal and intermittent noise.
    3) The pre-construction ambient sound levels at the Facility site and potentially impacted receptors will be evaluated in accordance with the requirements of these stipulations and applicable portions of ANSI Standards S12.100-2014 and S12.9 Part 2-1992 R-2013. These methods and standards will be described in the Noise Impact Analysis (NIA) and summarized in Exhibit 19 of the Application.
    4) Graphical timelines for the A-weighted Leq and the L90 broadband noise levels for each pre-construction sound measurement location will be included in the Application.
    5) Figures for the un-weighted Leq and the L90 full-octave band noise levels (after exclusions) for each pre-construction measurement location will also be included.
    6) Figures of the L90-10-minute noise levels recorded at the pre-construction location as a function of wind speeds at 10 meters as extrapolated from the meteorological tower(s) will also be included.
    7) The Application will describe how the pre-construction ambient surveys were conducted including specifications for sound instrumentation (type, sound floor, wind screens, temperature and humidity ranges) and weather meters, calibration, settings, positions that were tested, noise descriptors collected, range of sound frequencies evaluated, weather conditions, testing conditions to be excluded, schedules and time frames, testing methodologies and procedures, provisions for evaluation of existing tones and sounds with strong low frequency noise content, if any.
    8) Measurement locations will include GPS coordinates of the sound microphones and AADT information of the nearest road, to the extent the data is available from the County and/or New York State Department of Transportation (NYSDOT). The Application will include a justification for location selection and specify whether selected locations are representative of potentially impacted receptors.

9) The seasonal noise will be filtered by using the process specified in ANSI/ASA S12.100-2014. The intermittent noise will be filtered by reporting the L90. Each sound collection will be conducted for a minimum of 14 consecutive days.
10) Temporal accuracy of the ambient data will be calculated to a 95% confidence interval using the technique in Section 9 of ANSI S12.9-1992/Part 2 (R2013) or any other applicable statistical procedure as appropriate, for the Leq and the L90 noise descriptors.
11) Infrasound data down to 0.5 Hz will be collected at one location during the ambient measurement programs (summer and winter). Results will be reported in the Application.
12) The sound instrumentation for ambient sound surveys will comply with the following standards:
    a. ANSI S1.43-1997 (R March 16, 2007). Specifications for Integrating- Averaging Sound Level Meters;
    b. ANSI S1.11-2004 (R June 15, 2009) Specification for Octave-Band Analog and Digital Filters, and
    c. ANSI S1.40-2006 (R October 27, 2011) (Revision of ANSI 1.40-1984) Specifications and Verification Procedures for Sound Calibrators.
13) Data collected out of the range of operation of the sound instrumentation will be excluded. Sound data collected at wind speed exceeding 5 meters per second (11 miles-per-hour) at the sound microphone or portable weather station heights will also be excluded. Pre-construction sound level data collected during periods of rain, thunderstorms and snowstorms will also be excluded from the calculation of background sound levels. These periods of exclusions will be indicated on the graphs specified in section (b)(4).

c) Future sound levels from the Facility construction will be modeled based on predicted construction equipment, and construction activities sound emissions from the Federal Highway Administration (FHWA) Roadway Construction Noise Handbook. (FHWA-HEP-06-015. Final report, August 2006.). The modeling will be done at the most potentially impacted and representative locations using a 3-D computer propagation model. This will provide construction sound contours for the main phases of construction (e.g., excavation, foundation, erection of turbines) at residences, the substation area, and at any proposed batch plant/laydown area. Representative measured ambient data will be assigned to the most potentially and representative receptors modeled for construction noise impacts. The results will be presented in the Article 10 Application. This section will also include either a cross reference to the appropriate exhibit regarding construction hours, or if no such exhibit contains this information a discussion of time frames for construction activities indicating seasons of the year, days of the week, hours of the day, and whether construction activities will be performed during evening time (6:00 p.m. to 10 p.m.), nighttime (after 10:00 p.m. or before 7:00 a.m.), Saturdays, weekends or national holidays.
d) Future sound levels from the Facility operations will be calculated with the Cadna/A computer software or similar software that uses the ISO 9613-2 standard.
    1) For the purposes of this stipulation the term “ISO-9613-2” will refer to the ISO 9613-2:1996 Standard or equivalently the ANSI/ASA S12.62-2012/ISO 9613-2:1996 (Modified) Standard with no meteorological correction (Cmet) or equivalently with the meteorological correction Cmet equaled to a value of zero. CONCAWE meteorological corrections will not be used.
    2) The Cadna/A model performs calculations for full octave bands from 31.5 Hertz (Hz) to 8000 Hz.
    3) Computer noise modelling will be performed at a minimum for the turbine model with the highest Broadband A-weighted sound power level (the turbine that has the highest sound operational levels at the highest wind condition (Maximum dBA sound power level)). If other turbines have lower broadband A-weighted sound power levels but greater maximum un-weighted sound power levels at the 31.5 Hz, or 63

Hz full-octave bands, the discussion of low frequency noise impacts at these bands can be based on the use of the highest sound power levels at those bands, on an additional modelling scenario(s) with the maximum sound power levels at these low frequency bands, or by applying corrections to the low-frequency band results of the computer modelling for the turbine with the highest A-weighted broadband sound power level, as appropriate.

4) Sound power information from the turbines' manufacturer will be reported as associated with wind speed magnitudes, angular speed of the rotor, and rated power for the basic configuration, and for any noise reduction operations for the turbine model used in the Application, if available. Sound information from the manufacturers documenting the sound power levels at the 16, 31.5 and 63 Hz full-octave bands used in the Application, will also be reported.
5) The Application will include a discussion and justification for ground absorption "G" values that will be used for sound propagation over land.
6) For the purposes of evaluation of community complaint potential, noise modeling with the ISO 9613-2 standard will be conducted by following the recommendations included in the following reference: "Best Practices Guidelines for Assessing Sound Emissions from Proposed Wind Farms and Measuring the Performance of Completed Projects," October 13, 2011. Prepared for: The Minnesota Public Utilities Commission Under the auspices of the National Association of Regulatory Utility Commissioners (NARUC), Washington, DC. (Designated as NARUC-2011 in this stipulation).
7) The predicted sound levels from ISO 9613-2 will be reported for all sensitive receptors in tabular format. Sound levels at sensitive receptors and external property boundaries will be presented through graphical isolines (noise contours) of A-weighted decibels rendered on the map defined in section (a) of this stipulation for the Leq-8-hour and the Leq-1-year noise descriptors. Contours will be at 1-dBA increments starting at a minimum from the 35-dBA noise contour. Noise contours representing sound levels in multiples of 5 dB will be differentiated. Contour drawings will be presented in the Application in digital format. Full-size single digital drawings with noise contours rendered on the map defined in section (a) of this stipulation will be delivered to DPS and DOH in electronic media as well as full-size hardcopies (22" x 34" size drawings and 1:12,000 scale or similar are recommended).
8) Participating and non-participating (developed and undeveloped) property boundaries will be shown and differentiated in sound contour drawings with property identification information. Only properties that have a signed contract with the Applicant as of the date of filing the Application will be identified as "participating".
9) A temperature of 10 degrees Celsius and 70% relative humidity will be used to calculate atmospheric absorption for the ISO 9613-2 model. These conditions result in the smallest reduction in sound levels caused by air absorption at the key frequencies for A-weighted sound levels.
10) Additional modeling scenarios for evaluation of mitigation options for impact avoidance or minimization will be included, if needed. In this case, results will be differentiated. (e.g.: "mitigated" vs. "un-mitigated").

Annual, Seasonal Sound Level Modelling:

11) A full year of meteorological data will be used to calculate the hub height wind speed and related sound power levels for each hour of the year (8760 hours). For information purposes this information will be aggregated into "bins" for each sound power level provided by the wind turbine manufacturer under consideration, and presented in the Application subject to confidentiality as specified in this section. From these data, the sound exceeded for 10% of the time over the course of one year (L10) can be calculated, as well as the sound exceeded for 50% of the time over the course of one year (L50). These will be done

by running ISO 9613-2 with the sound power level associated with the L10 and L50 condition calculated above. The Application will report worst case (L10) and typical (L50) operational sound levels for all sensitive receptors. The sound levels will be driven by the hourly wind speed which drives the resultant sound power level of the wind turbines. These calculations will be done for two scenarios: all hours in a year (including hours below cut-in speed and above cut-out wind speed), and only those hours in a year above cut-in speed and below cut-out wind speed. Details of data and calculations will be delivered to DPS in spreadsheet compatible or tabular format and will be filed with the Hearing Examiner(s) and treated by the Records Access Officer or other presiding officer as confidential, if requested and approved pursuant to the Freedom of Information Law or Protective Order.

12) An equivalent sound level for all nighttime hours in one year (Leq, night, 1-year) will be calculated from the same hub height wind speed data set as item 19(d)(11) above. No agreement is reached between the parties related to the height of receptors above ground elevations for evaluation of conformance with WHO guidelines. This will be done using the percent time matched to sound power level at a given wind speed, and will be calculated on an energy basis. This Leq, night, 1-year sound power level will be input to ISO 9613-2 to calculate the "Lnight, outside" sound level at all sensitive receptors. These calculations will be done and reported for two scenarios: all hours in a year (including hours below cut-in speed and above cut-out wind speed), and only those hours in a year above cut-in speed and below cut-out wind speed. The application will also report the maximum Leq-8-hour- nighttime and the maximum Leq-16-hour-daytime in a year at each sensitive receptor. Details of data and calculations will be delivered to DPS in spreadsheet compatible or tabular format and will be filed with the Hearing Examiner(s) and treated by the Records Access Officer or other presiding officer as confidential, if requested and approved pursuant to the Freedom of Information Law or Protective Order.

13) The Application will include a brief discussion about the accuracy of selected outdoor propagation models, methodologies, ground absorption values, assumptions and the correlation between measurements and predictions for documented cases as compared to other alternatives, as available. This will also include a description and general discussion of the site topography between turbines and receptor locations as applicable to the site, and its effects on accuracy of modeling results. (E.g. flat, steady or concave slopes) and other factors such as sound power level determination, uncertainties, and height of sound receptors above the ground. This will be a general discussion and is not intended to be an analysis of topography between each turbine and each receptor location. However, the discussion will be expanded and be more detailed for those areas with concave terrain between turbines and receptors where forecasted sound levels approach by five dB (or are equal to or greater than) any sound goals identified in table G-1.

14) The model will also include relevant noise sources from substations, and proposed ancillary equipment, if any.

15) A ground absorption factor, G, of zero (G=0) will be used to represent water bodies with a width dimension greater than 500 ft. They include Marsh Pond, Deposit Reservoir, Sky Lake, and Deer Lake.

e) An evaluation of future noise levels predicted during operation of the facility, related facilities and ancillary equipment including:

1) Modeled A- weighted/dBA sound levels at all sensitive receptors.

2) A tonal evaluation based on the reported sound power of each wind turbine model and substation transformers under consideration will be performed. This will be done as part of the pre-construction

evaluation. The "prominent discrete tone" constant level differences (Kt) in ANSI S12.9-2013/Part 3 Annex B, section B.1, will be used to evaluate tones at the nearest ten (10) potentially impacted and representative noise receptors using spreadsheet calculations. One-third octave band data will be used for the turbine models where information from the manufacturers is available and included in a spreadsheet to determine if a tonal (prominent tone) condition is possible. Information from the IEC 61400-11 documentation on tonality will be provided for the wind turbine model(s) under consideration, if available. Tonality values for a batch of turbines as specified in IEC 61400-14 Part 14, if available, will also be included in the Application. The Application will include a brief discussion about the effects of tonality on adverse community noise reaction (annoyance/complaints).

3) Amplitude modulation:
   i. The Application will include a literature review of amplitude modulation from wind turbine operations with a summary of findings including, but not limited to, a description of the phenomena, whether amplitude modulation can be predicted, post-construction methods of measurement and evaluation and post-construction operational mitigation options to avoid, minimize, and mitigate amplitude modulation effects on receptors. The review will also include an analysis of the effects of amplitude modulation in adverse community noise reaction including annoyance and complaints. The literature will be either peer-reviewed or government sponsored. At a minimum, the following reference will be included in the literature review: Review of the evidence on the response to amplitude modulation from wind turbines. Phase 2 Report. Department for Business, Energy and Industrial Strategy. U.K. Commissioned by the Department of Energy & Climate Change (DECC). United Kingdom. August 2016.
   ii. A detailed discussion of the met tower data will be included in the Application.
   iii. Reporting of wind shear and turbulence data will be based on one year of on-site met tower data. A summary of minimum, mean and maximum measured values of wind shear and turbulence will be reported. Additional standards and guidance documents, (i.e., Annexes B and D the IEC 61400-11) will be utilized as applicable and appropriate.
   iv. A summary of formulae, procedures and assumptions will be described in the Application.

4) Infrasound and low-frequency sounds:
   i. Low frequency sounds for the full octave bands equal to and greater than 31.5 Hertz will be evaluated at all sensitive receptors listed in section (a) of this Stipulation.
   ii. Infrasound for the full-octave band of 16 Hertz will be evaluated as indicated in section 19 (k) (6). A list of sound sensitive receptors with sound pressure levels (SPLs) equal to and greater than 65 dB at 16, 31.5 or 63 Hz, if any, will be reported along with their estimated SPLs. The number of receptors with SPLs equal to and greater than 65 dB will also be reported.
   iii. Infrasound and low frequency sound for the full octave bands lower than 31.5 Hz but equal to or greater than 0.5 Hz will be evaluated for the most potentially impacted and representative sensitive receptors listed in section (a) of this Stipulation.
   iv. The Application will include a list of available sound data, detailed discussion and appropriate literature references for proposed turbine models or from similar projects with similar wind turbine models. The literature will be either peer-reviewed, or government sponsored. Should a model be selected that has available infrasound data, then this information will be used as the basis for infrasound evaluation. If calculations are performed to estimate infrasound levels at infrasound frequencies lower than the 20 Hz

full-octave band, a discussion of decay rate as a function of frequency (e.g. Tachibana criteria) and distance (e.g. 3 dB vs 6 dB per doubling distance) will be included. [1]

f) The A-weighted/dBA sound levels, in tabular form for each sensitive location, will be calculated both with and without periods when the turbines will not be operating (rotating) for the yearly and seasonal sound levels. Future sound levels as required by 1001.19 Exh.19 (f) will be done using the 8760 hours of modeled results and assigning them to the corresponding hours defining "winter nighttime", etc. The tables will include the following:
   (1) The daytime ambient noise level will be calculated from summer and winter background sound level monitoring data. This will be equal to the lower tenth percentile (L90) of sound levels measured during the daytime at each of the monitoring locations. Daytime will be 15 hours (7 AM – 10 PM).
   (2) The summer nighttime ambient noise level will be calculated from summer background sound level monitoring data. This will be equal to the lower tenth percentile (L90) of sound levels measured at night, during the summer at each of the monitoring locations. Nighttime will be 9 hours (10 PM – 7 AM).
   (3) The winter nighttime ambient noise level will be calculated from background sound level monitoring data. This will be equal to the lower tenth percentile (L90) of sound levels measured at night, during the winter at each of the monitoring locations. Nighttime will be 9 hours (10 PM – 7 AM).
   (4) The worst case future noise level during the daytime period will be determined for each sensitive receptor listed in section (a) of this Stipulation by logarithmically adding the most representative daytime ambient sound level (L90) as related to the use and soundscape of the location being evaluated, calculated from background sound level monitoring in Stipulation 19(f)(1), to the modeled upper tenth percentile sound level (L10) of the Facility. The L10 statistical noise descriptor corresponds to estimates for one year of operation. Daytime will be 15 hours (7 AM – 10 PM).
   (5) The worst case future noise level during the summer nighttime period will be determined for each sensitive receptor listed in section (a) of this stipulation by logarithmically adding the most representative summer nighttime ambient sound level (L90) as related to the use and soundscape of the location being evaluated, calculated from background sound level monitoring in Stipulation 19(f)(2), to the modeled upper tenth percentile sound level (L10) of the Facility at each evaluated receptor. The L10 statistical noise descriptor is proposed to be estimated for the summer nighttime period within one year of operation. Nighttime will be 9 hours (10 PM – 7 AM).
   (6) The worst case future noise level during the winter nighttime period will be determined for each sensitive receptor listed in section (a) of this stipulation by logarithmically adding the most representative winter nighttime ambient sound level (L90) as related to the use and soundscape of the location being evaluated, calculated from background sound level monitoring in Stipulation 19(f)(3), to the modeled upper tenth percentile sound level (L10) the Facility at each evaluated receptor. The L10 statistical noise descriptor is proposed to be estimated for the winter nighttime period within one year of operation. Nighttime will be 9 hours (10 PM – 7 AM).
   (7) The daytime ambient average noise level will be calculated by logarithmically averaging sound pressure levels (Leq) (after exclusions) from the background sound level measurements over the daytime period at each monitoring location. These calculations will include both summer and winter data. Daytime will be 15 hours (7 AM – 10 PM).

[1] Confidential data, if any, will be filed with the Hearing Examiners and treated by the Records Access Officer, ALJ, or other presiding officer as confidential, if requested and approved pursuant to the Freedom of Information Law or Protective Order.

(8) Typical facility noise levels for each sensitive receptor listed in section (a) of this stipulation will be calculated as the median sound pressure level emitted by the Facility at each evaluated receptor. The median sound pressure level will be calculated by determining the frequency of site specific meteorological conditions and sound emissions of the Facility due to those conditions. The L50 statistical noise descriptor will correspond to the median daytime sound level in a year.

(9) Typical facility daytime noise levels for each sensitive receptor listed in section (a) of this stipulation will be calculated as the most representative daytime equivalent average sound level (Leq) that was calculated from background sound level monitoring in Stipulation 19(f)(7), as related to the use and soundscape of the location being evaluated, logarithmically added to the median Facility sound pressure level (L50) at each evaluated receptor. The L50 statistical noise descriptor will correspond to the daytime in a year as calculated in Stipulation 19(f)(8). Daytime will be 15 hours (7 AM – 10 PM).

g) A complete description of regulations, ordinances, noise standards, guidelines and goals applicable to the Facility site[2] at sound receptors and boundary lines, and a discussion of the Facility's level of compliance with them. The following Table G-1 lists the standards and design goals for this project with respect to sound:

Table G-1 Summary of Sound Standards Bluestone Wind

#	Municipality or Organization	Sound Level Limit	Assessment Location	Noise descriptor	Period of Time	Participant Status
1	Town of Sanford Renewable Energy Systems §1402.5(A)(5)	50 dBA	Exterior wall of the nearest non-participating residence	Not stated	Not stated—assumed to be an hour	Non-participant
2	Program Policy Assessing and Mitigating Noise Impacts issued by the New York State Department of Environmental Conservation (NYSDEC), Feb. 2001	6 dBA increase over ambient	Areas of human use	L90	Not stated	NYS DEC lands
3	Design goal (1999 WHO Guidelines)	45 dBA[3]	At residence	Leq	8-hour; nighttime	Non-participant
4	Design goal (1999 WHO Guidelines)	55 dBA	At residence	Leq	8-hour; nighttime	Participant
5	Design goal	55 dBA	Property line and lands except wet-	$L_{eq, night, outside}$	1-hour; day or night.	Non-participant

[2] For purposes of comparing predicted sound levels from the Facility with regulations, ordinances, noise standards, guidelines and goals applicable to the Facility, the Application will discuss the input parameters, assumptions, associated data and standards that were used for purposes of predicting sound pressure levels from the Facility's turbines, (e.g. sound power level, noise descriptors, time frames of determination, ground absorption factors, any corrections, receptor heights used (e.g. 1.5 meters, 4.0 meters) along with its justification) and the criteria that were used in the development of these design goals.

[3] Subject to a 5 dBA penalty if a prominent tone occurs. See goal 9 for details.

			lands			
6	Design goal (Permit condition Case 14-F-0490 (Cassadaga Wind))	40 dBA	At residence	$L_{eq, night, outside}$	Annual; nighttime	Non-participant
7	Design goal (Permit condition Case 14-F-0490 (Cassadaga Wind))	50 dBA	At residence	$L_{eq, night, outside}$	Annual; nighttime	Participant
8	Design goal (Permit condition Case 14-F-0490 (Cassadaga Wind))	65 dB at 16, 31.5, 63 Hz	At residence	Leq	1-hour; day or night	Non-participant
9	Design goal (Permit condition Case 14-F-0490 (Cassadaga Wind))	No pure tone or 5 dBA penalty if a prominent tone occurs	At residence	Leq	1-hour; day or night	Non-participant
10	Design goal (ANSI/ASA S12.9-2007/Part 5)	50 dBA	Non-residential (historic venues; cemeteries; playgrounds; etc)	Leq	1-hour	Non-participant
11	Design goal for vibrations.	Not perceptible indoor vibrations	At residence	See ANSI S 2.71-1983 (R August 6/2012) for details	See ANSI S 2.71-1983 (R August 6/2012) for details	Non-Participant

The Application will also include a description of the following guidelines and a discussion of the Facility's level of compliance with them, if applicable:

(1) See Stipulation 31 for a discussion of the Town of Windsor regulations.
(2) American National Standard Quantities and Procedures for Description and Measurement of Environmental Sound – Part 4: Noise Assessment and Prediction of Long-term Community Response, American National Standards Institute ANSI S12.9-2005/Part 4, Annex C. Sounds with tonal content, Acoustical Society of America, New York, (2005).

h) A table outlining regulations, ordinances, noise standards, guidelines and goals applicable to the Facility. The Applicant will review applicable local codes and will provide a summary of applicable noise standards from these codes. In addition, the Applicant will include a summary of noise-modelling results from the Noise Impact Analysis for all sensitive receptors as listed in section (a) of these stipulations in relation to applicable noise ordinances, standards, guidelines, goals and identified criteria by using the specific requirements as related to noise descriptors (e.g. Leq, L10, Leq1-year $_{night}$, L(8-hour $_{night}$) etc.), weighting scales, and time frame of

determination (e.g.: minutes/hour, 1-hour, 8-hour, 16-hour, 1-year, etc.). The number of receptors exceeding any identified limit, threshold, goal, guideline or recommendation will be included in the Application (In terms of absolute and relative numbers). For ease of identification and comparison, both the shadow flicker study prepared for Exhibit 24 and the sound study prepared for Exhibit 19 will use the same definition of "sensitive receptor" and will employ a common receptor labelling system. Noise levels for participant and non-participant lot boundary lines will be represented as specified in section (d).

i) Identification and evaluation of reasonable noise abatement measures for construction activities will be provided, including a description of the construction noise complaint resolution plan (CNCRP) that shall be provided during the construction period. The Application will include an assessment of reasonable noise abatement measures during construction (i.e., implementing BMPs, complaint resolution plan, etc.).

j) An identification and evaluation of reasonable noise abatement measures for the final design and operation of the Facility including the use of alternative technologies, alternative designs, and alternative Facility arrangements.

k) An evaluation of the following potential community noise impacts:

(1) The potential for the Facility to result in hearing damage will be addressed using OSHA standards, US EPA "Levels" document (1974), and WHO-1999.

(2) Indoor and outdoor speech interference will be addressed using the US EPA "Levels" document (1974) and WHO-1999 Guideline Levels.

(3) Potential for annoyance and complaints will include a review of peer reviewed studies, technical and scientific publications, and/or government sponsored publications, specific to the relationship between wind turbine noise and annoyance/complaints. No agreement is reached between the parties related to the methodology and references for evaluation of annoyance and complaints. Community complaint potential will be evaluated based upon identified factors, thresholds and guidelines. Number of sensitive receptors grouped by use and by participation status exposed to noise levels equal to and greater than 35 dBA[4] will be reported in 1 dBA intervals with sound levels rounded to the nearest integer.

(4) A summary of thresholds and guidelines included in the NYSDEC Program Policy Assessing and Mitigating Noise Impacts, as well a description of compliance with these guidelines for NYSDEC lands, will be provided in the noise report to be included with the Article 10 Application.

(5) Information regarding construction activities will be included in the Construction Operations Plan, the Preliminary Blasting Plan (if any blasting is determined to be necessary), and the Preliminary Geotechnical Report. Potential for some construction activities (such as blasting, pile driving, excavation, horizontal directional drilling (HDD) or rock hammering, if any) to produce any cracks, settlements or structural damage on any existing proximal buildings, including any residences, historical buildings or infrastructure will be analyzed in this section and included in the Application.

(6) Potential for ground-borne transmitted vibrations from the operation of the Facility to reach a sensitive receptor and cause vibrations on the floors or on building envelope elements that may be perceived at the receptor will be evaluated through a review of peer-review literature or government sponsored studies. The discussion can be illustrated with publicly available or measured data from similar projects and an analysis of whether ground borne transmitted vibrations from the operation of the turbines could exceed vibration thresholds as recommended by ANSI S2.71-1983 (R 2012) for residential use and ISO 2631-2-2003 sensitive equipment use, if any. Description of the validity and applicability of findings will include

[4] As obtained by following the recommendations of NARUC-2011 guidelines for computer noise modeling.

technical considerations such as distances between turbines and evaluated receptors, and turbine specifications (such as turbine masses and frequencies of rotation, if available).

(7) The potential for air-borne induced vibrations from the operation of the facility to generate annoyance, cause vibrations, rumbles or rattles in windows, walls or floors of sensitive receptors will be analyzed by applying the outdoor criteria established in section D.2.1 of annex D of ANSI standard S12.9 - 2005/Part 4. Applicable portions of ANSI 12.2 (2008) may be used for the evaluation of frequency bands where ANSI 12.2 (2008) may be a more restricting criterion, or if it is expected that ANSI S12.9- 2005/Part 4- Annex D guidelines would be met but still represent a potential for perceptible vibrations at indoor locations of sensitive sound receptors, if any. Maximum sound levels at the 31.5 and 63 Hz bands as predicted with computer noise modeling (ISO 9613-2) will be reported for all sound sensitive receptors specified in section (a) of this stipulation. Discussion of the 16 Hz full-octave band will be based on extrapolated sound pressure data down to the 16 Hz based on the 31.5 Hz model results. The extrapolation will be the difference between the highest manufacturer's sound power data at 16 Hz. and the 31.5 Hz sound power data used for computer modeling if the information is available for all turbine models considered for the project. If no information from the manufacturer is available for the 16 Hz. full-octave band for any turbine models considered for the project, a minimum increase of 4 dB[5] will be applied to the 31.5 Hz sound pressure results to obtain the 16 Hz SPL results unless sound power information for the 16 Hz. frequency band for any other turbines considered for the project are greater than the one obtained by applying a minimum 4 dB increase to the sound power level used for modeling at 31.5 Hz. In this latter case the correction will the difference between the maximum sound power level at 16 Hz for any turbines considered for the project and the sound power levels for the 31.5 frequency band used for computer modeling. The correction will be applied to the 31.5 SPL results to obtain the 16 Hz. SPL results.

(8) A map and a discussion about the potential of low-frequency noise including infrasound and vibration from operation of the facility to interfere with seismological stations within 50 miles, as well as with stations that are part of the Comprehensive Nuclear Test Ban Treaty Organization (CTBTO) International Monitoring System. If the distances from the project site are more than 50 miles, a discussion may be substituted for a map.

l) A description of the proposed post-construction evaluation studies and a plan for post-construction evaluations to determine conformance with operational noise and vibration design goals. These will be included in a protocol that will contain, among other items, sound instrumentation specifications and calibration requirements; equipment settings; criteria for selection of testing locations, noise and vibration goals and descriptors to be evaluated; weather conditions to be tested and to be excluded; seasons and time frames for testing; testing procedures for proposed design goals, and provisions for processing test results, reporting, and documentation.

m) An identification of practicable post-construction operational controls and other mitigation measures that will be available to address reasonable complaints, including a description of a noise and vibration complaint resolution plan that shall be provided during periods of construction (CMCRP) and operation (ONCRP).

n) Specific modeling input parameters, assumptions, and any associated data used in sound propagation modeling and calculations will be included as an appendix to the NIA and shall fairly match the unique operational noise characteristics of the particular models and configurations proposed for the facility. Turbine dimensions, hub height, and rotor diameter will be reported in the Application. GIS files with turbine and other noise source

[5] Based on the Tachibana criteria. Outcome of Systematic Research on Wind Turbine Noise in Japan. Hideki Tachibana. Inter-noise 2014. Page 4. Figure 4(a).

locations, ground elevations and heights; evaluated participating and non-participating receptor locations, elevations and heights; participant and non-participant boundary lines, proposed grading, and topography, will be delivered directly to DPS-Staff by electronic means.

o) A glossary of terminology, definitions, and abbreviations used throughout Exhibit 19 and citations with references mentioned in the Application.

p) To the extent possible, the findings and results of Exhibit 19 will be reported and presented in the Application in the same order as listed in this stipulation. Some contents can be presented as Appendices (e.g., Pre-construction Ambient Sound Level survey data).

Stipulation 20– 1001.20 Exhibit 20: Cultural Resources

Consistent with 16 NYCRR § 1001.20 and the New York State Office of Parks, Recreation, and Historic Preservation's (NYSOPRHP's) Guidelines for Wind Farm Development Cultural Resources Survey Work (the SHPO Wind Guidelines; NYSOPRHP, 2006), the Applicant initiated consultation with the NYSOPRHP on March 22, 2017 to develop the scope and methodology for cultural resources studies for the Facility. To date, formal consultation with NYSOPRHP has included initiating Facility review and consultation through NYSOPRHP's Cultural Resources Information System (CRIS) website, submission of technical reports/work plans, and submittal of Cultural Work Plans for the archeological and historic architecture resources surveys. In addition, the Applicant has met with NYSOPRHP staff to review this project (see PSS Section 2.2) and has participated in conversations with representatives from the Oneida Indian Nation in March 2017. The Applicant will implement the measures outlined in the archeological and historic architectural resources. Cultural Work Plans were approved by the NYSOPRHP on March 29, 2018 and April 4, 2018, respectively. Per the Cultural Work Plan, changes in setting of NRHP-listed and/or NRHP-eligible listed resources will be assessed for both sound and visual impacts.

In relation to these on-going discussions, the Applicant agrees to provide the information required by 1001.20. As part of the consultation the Towns have identified cemeteries to be included as cultural resources. In addition, Exhibit 20 will also include a proposed draft Cultural Resources Mitigation Plan. This Exhibit will also discuss the reasonable avoidance, minimization and mitigation options available to address potential impacts from the Facility on cultural resources.

Stipulation 21– 1001.21 Exhibit 21: Geology, Seismology, and Soils

Exhibit 21 shall contain:

a) The Applicant agrees to provide the information required by 1001.21(a).

b) A proposed site plan showing existing and proposed contours at 2-foot intervals. The Applicant will use publicly available 2-foot contour elevation data.

c) Preliminary cut and fill calculations based on the above-described contour data. Separate calculations for topsoil, sub-soil and rock will be roughly approximated based on publicly available data from the Broome County Soil Survey and the results of the preliminary geotechnical investigation. In addition, a description of typical scenarios that would result in cut and fill necessary to construct the Facility, such as constructing an access road on a side slope, will be provided. Information regarding invasive species will be addressed in Exhibit 22(b) of the Application as set forth in Stipulation 22(b) below.

d) A preliminary calculation of the amount of fill, gravel, etc. based on typical Facility details such as an access road cross section. Calculation will be based on the anticipated amount of material needed. For example, an access road typical detail will indicate typical width of road and depth of gravel, which will be multiplied by the linear distance of proposed access road.
e) The Applicant agrees to provide the information required by 1001.21(e).
f) The Applicant agrees to provide the information required by 1001.21(f). A preliminary Inadvertent Return (or Frac-Out) Plan will be included in the Application if horizontal directional drilling is proposed.
g) The Applicant agrees to provide the information required by 1001.21(g).
h) The results of a preliminary geotechnical investigation including:

i. Literature review of publicly available data regarding surface and subsurface soil, bedrock, and groundwater conditions including the following anticipated sources: *Surficial Geologic Map of New York, Geologic (Bedrock) Map of New York, Soil Survey of Broome County, Deep Wells in New York State, Geology of Broome County, Tectonic Units and Preliminary Brittle Structures of New York, Aquifers of New York State, Geology of New York – A Simplified Account, New York State Building Code*.
ii. Detailed summary of preliminary geotechnical investigations performed, including a description of the rationale for the selection of boring locations;
iii. Evaluation of the suitability of existing soils for re-use as backfill, including an assessment of the risk of turbine foundation corrosion and degradation. Soils within the Facility Site that are identified as having a moderate or high risk of corrosion of steel or concrete, as defined by the National Resources Conservation Service (NRCS) Web Soil Survey, will be identified.
iv. A preliminary geotechnical investigation report will be provided as an appendix, summarizing the following:
    - Surface Soils
    - Subsurface Soils
    - Bedrock Conditions
    - Hydrogeologic Conditions
    - Results of test borings advanced within the project area, including copies of field logs for each boring
    - Results of laboratory tests of soil samples collected during the advancement of test borings within the Facility Site, including analysis of the Chemical and Engineering Properties
    - Seismic Considerations
    - Frost Action and Soil Shrink/Swell Potential
    - Construction Suitability Analysis and Recommendations

.

i) The Applicant agrees to provide the information required by 1001.21(i). The preliminary blasting plan should include procedures and timeframes for notifying host communities and property owners within one-half mile radius of blasting locations.
j) The Applicant agrees to provide the information required by 1001.21(j), including a description of potential impacts to local water or know gas wells and gas pipelines. The Applicant agrees to review the publically-available oil and gas well information from the NYSDEC and provide applicable mapping within the Application. The Application will also include a rationale for any proposed setbacks of blasting operations from existing infrastructure.

k) The Applicant agrees to provide the information required by 1001.21(k). Methods for determining the potential for impacts to water wells located within 500 feet of blasting operations and mitigation measures for wells impacted during blasting operations will be described.

l) The Applicant agrees to provide the information required by 1001.21(l), including a description of the Facility's effect on local mining operations.

m) The Applicant agrees to provide the information required by 1001.21(m). The Application will include a map identifying the locations of all known and permitted quarries within the Facility Site, based on publicly available information, and a discussion evaluating potential impacts of Facility construction and operation, including blasting (if proposed), on local mining operations.

n) The USGS Earthquakes Hazards Program does not identify any young faults within the vicinity of the Facility. Therefore, this topic will not be further addressed in the Article 10 Application.

o) A map delineating soil types at the Facility Site in relation to the proposed Facilities layout, using data from USDA NRCS Web Soil Survey indicating locations of Prime Farmland, Prime Farmland if drained, Unique Farmland, Farmland of Statewide Importance, and Farmland of Local Importance. Specifically, Prime Farmland, Prime Farmland if Drained, and Farmland of Statewide Importance will be mapped based on data obtained from the Soil Survey Geographic Database (SSURGO), while Unique Farmland and Farmland of Local Importance will be mapped based on consultation with the local NRCS office (i.e., assuming the local NRCS office is able to provide a list of such soils).

p) The Applicant agrees to provide the information required by 1001.21(p). The preliminary geotechnical analysis will, in general terms, address the suitability and limitations of existing soils for the proposed site development including excavation stability, erosion hazard, corrosion potential, and foundation integrity. These discussions will be supported by published information of specific soil types. Additionally, these items will also be addressed with discussions pertaining to BMP's that should be employed by the designer/contractor to help minimize potential risks/hazards. Areas where dewatering is anticipated will be identified and typical dewatering methods will be described. If dewatering is addressed in another Exhibit (e.g., Exhibit 23), an appropriate reference to that information will be provided.

q) Maps, figures, and analyses on depth to bedrock, underlying bedrock types, and vertical profiles of soils, bedrock, water table, seasonal high groundwater (using USFWS Online Spatial Geology Data, the USDA NRCS Web Soil Survey, and the Preliminary Geotechnical Analysis), and typical foundation depths. The maps included in the stand-along Preliminary Geotechnical Analysis will show all Facility components, including access roads and interconnections. Vertical profiles will be associated with test boring locations only, and the locations of borings advanced during the preliminary geotechnical investigations will also be identified on maps included with the report. Areas designated for stockpiling of spoils and fill materials will be identified. If spoil materials will be temporarily stockpiled adjacent to turbine, access road, and trench locations, typical layouts will be provided.

r) The Applicant agrees to provide the information required by 1001.21(r).

s) An assessment of historical seismic activity, potential impacts associated with future seismic activity, and any proposed mitigation measures will be included in the Application. Components of this Facility will be evaluated, designed, and constructed to resist the effects of earthquake motions in accordance with the American Society of Civil Engineers (ASCE) 7. The seismic design category for Project structures will be determined in accordance with Section 1613 of the New York State Building Code or ASCE 7. The Facility is located approximately 115 miles from the nearest large water body (Lake Ontario), there is no vulnerability associated with tsunami events. Therefore, the parties agree the Application will not address a potential tsunami event.

Stipulation 22– 1001.22 Exhibit 22: Terrestrial Ecology and Wetlands

Exhibit 22 shall contain:

a) 1001.22(a), Identification and description of plant communities

1) Information on plant communities of the Facility Site based on the results of reconnaissance-level field verification conducted in 2017 and 2018, review of USGS National Land Cover Database (NLCD) land cover data, and recent aerial imagery.

2) Specific information on, and a detailed description of, all ecological communities identified within parcels that will host Facility components will be provided, as classified according to *Ecological Communities of New York State* (Edinger et al., 2014).

3) Maps, based on aerial photography, at a scale of 1:2000 or finer showing approximate locations and extent of identified plant communities within 500 feet of disturbance of the proposed Facility, as classified according to *Ecological Communities of New York State* (Edinger et al., 2014) will be included.

4) A plant species list, which will include all species identified during various field surveys and incidentally while at the Facility Site, will identify the month and year observed to the extent available.

b) 1001.22(b), An analysis of impacts to vegetation from construction and operation

1. Proposed temporary and permanent impacts to plant communities shall be calculated and discussed including:

i. Discuss specific assumptions associated with approximate limit of vegetation clearing for each type of Facility component as identified in the Preliminary Design Drawings associated with Exhibit 11.
ii. Provide a table of assumed area disturbance for each Facility component type associated with Exhibit 11 addressed in "I" above.
iii. Calculate using GIS software, and present in a summary impact table, the number of acres impacted. Permanent impact calculations will include all tree clearing, including permanent conversions of one cover type to another, for construction and operation of the Facility.
iv. The plant community mapping referenced in 22(a) above will also depict vegetation cover types in relation to proposed limits of vegetation disturbance, and associated GIS shapefiles of all areas of disturbance will be provided to NYSDEC and NYSDPS per general stipulation #6 above.

2. 1001.22(b) continued, Invasive Species Identification

i. A list of all non-native invasive plant observed during site-specific field investigations and known to occur within the Facility. The list of non-native invasive plant species in areas of proposed disturbance shall be based on a qualitative survey conducted concurrent with field surveys conducted in support of Exhibits 22 and 23. For the purposes of Exhibit 22, "invasive species" is defined as all terrestrial and aquatic species listed at: http://www.dec.ny.gov/docs/lands_forests_pdf/islist.pdf. Additional invasive species not included on this list (e.g. reed canary grass and wild parsnip) may also warrant specific management and control measures, depending on current populations of such species within and

nearby the Facility. The findings of the qualitative survey of invasive species will be verified by the Applicant within 6-months prior to construction. If changes in invasive plant communities are observed during this verification, updates to the Invasive Species Control Plan (see 1001.22(b) below) will be filed as a compliance filing.

ii. For each invasive species identify an area and concentration threshold that requires mapping and an individual treatment plan.
iii. Maps at a scale of 1:2000 of any identified concentrations of non-native invasive plant species in areas of proposed disturbance will be included.
iv. A list of invasive insect species, if any, limited to incidental observations concentrations of insects during field observations in support of Exhibits 22 and23.

3. 1001.22(b) Continued, Invasive Species Control Plan

An Invasive Species Control Plan that addresses the plant species listed in 6 NYCRR Part 575 will be included in the Application. The Invasive Species Control Plan will include:

i. A summary of the survey methods to be used to identify existing non-native invasive species;
ii. Specific methods the Applicant proposes to use to ensure that packing materials, imported fill and fill leaving the Facility site will be free of non-native invasive species, materials seeds and parts to the extent practicable;
iii. A specification on how fill material brought to the Facility site will be free of non-native invasive species, material, seeds and parts and a description of how fill brought to the Facility will not be used in areas free of invasive species;
iv. A description of specific Facility grading, erosion and sediment control measures that will be used to prevent the introduction, spread or proliferation of all non-native invasive species to the extent practicable;
v. Details of procedures for preventing the spread of invasive invertebrates and diseases, such as the emerald ash borer, hemlock woody adelgid, and oak wilt, based on specific protocols and/or guidance by the NYSDEC and NYSDAM and a discussion of how the Applicant will comply with the state quarantine and protective zones, where applicable;
vi. Implementation plans for ensuring that equipment and personnel arrive at and depart from the Facility Site clean and free of all non-native invasive plant and insect species, including description of options for cleaning equipment, personnel, and properly disposing of materials known to be infested;
vii. A detailed description of the Best Management Practices or procedures that will be implemented, and the education measures that will be used to educate workers;
viii. A plan for post-construction monitoring and survey measures and procedures for revising the Invasive Species Control Plan in the event that the established goals are not met;
ix. Anticipated methods and procedures used to treat non-native invasive plant and insect species that have been introduced or spread as a result of the construction or operation of the Facility; and
x. Landscape re-vegetation plans, including specification of native seed mix to be used, as appropriate. This section may also include a cross reference to Exhibit 23(c)(1) which will describe site stabilization measures.

c) 1001.22(c), Avoidance and mitigation measures regarding vegetation impacts

A detailed description of the proposed measures that will be implemented to avoid, minimize, and potentially mitigate for any temporary and permanent impacts to existing, non-invasive plant communities, particularly grasslands, wetlands, interior forests, and shrublands, as a result of the construction and operation of the Facility.

d) 1001.22(d), Vegetation, wildlife, and wildlife habitats

Exhibit 22(d) shall contain information on and a characterization of aquatic and terrestrial vegetation, wildlife, and wildlife habitats that occur throughout the Facility Site, encompassing all areas that may be disturbed for construction of turbines, roads, and electric interconnection, including:

1) Identification and description of plant communities, species, and wildlife habitat.

i. Such descriptions will include field identification of aquatic habitats, plant communities, and wildlife habitat that could potentially support federally or state-listed threatened and endangered (T&E) species, state species of special concern (SSC), and state species of greatest conservation need (SGCN) as documented during on-site field investigations (*e.g*., ecological cover type assessments, habitat assessments, and wetland delineations).
ii. Ecological cover type assessments and habitat assessments identified in "I" above, will be classified according to *Ecological Communities of New York State* (Edinger et al., 2014).
iii. Identification and depiction of any designated unusual habitats or significant natural communities that could support federally or state-listed T&E species, Species of Special Concern (SSC), or Species of Greatest Conservation Need (SGCN).
iv. Provide a table of state and federally listed species occurring or likely to occur within the project are including the following columns:
    a. Species name.
    b. Federal status.
    c. NYS status.
    d. SGCN listing,
    e. habitat preference identified according to *Ecological Communities of New York State* (Edinger et al., 2014),
    f. Identify maps from stipulation 1001.22(a)(3) that include habitat for each species.
    g. Source of information indicating potential presence of species.
    h. indicate if species was observed onsite.

v. A characterization of avian species will be completed using data from NHP, NYSDEC staff, USFWS, local experts (e.g. Delaware Otsego Audubon Society (DOAS))(see Stipulation 22(d)(1)(xi))), New York Breeding Bird Atlas (BBA), Hawk Migration Association of North America (HMANA), Christmas Bird Count (CBC), eBird, and on-site surveys U.S. Fish and Wildlife Service (USFWS) and New York Natural Heritage Program (NHP).

vi. Publicly available database information will be used to determine if any bat hibernacula are located within the study area (New York State only). If hibernacula are identified within the Facility Site, or five miles from any Facility component, the location and distance to the nearest identified hibernacula will be provided separately and confidentially to NYSDEC and NYSDPS.

vii. Information on amphibians and reptiles based the New York State Amphibians & Reptile Atlas Project (Herp Atlas), database records obtained from NHP, NYSDEC, and USFWS, assessments of suitable habitat in the Facility Area, and any field observations made on site or in the vicinity of the Facility.

viii. To the extent that vernal pools are identified at the time of field delineation, and will be disturbed by construction or operation of the Facility, those features will be identified in the Application. The discussion should include an evaluation of the use of the identified vernal pools by amphibians and the potential impacts to those species.

ix. A list of typical terrestrial invertebrates found in the region and likely to occur within the Facility Site based upon available habitat, and observations made during on-site surveys. The Applicant will contact/consult with NHP, NYSDEC and USFWS to identify any potential T&E species, Species of Special Concern (SSC), or Species of Greatest Conservation Need (SGCN).

x. A discussion of the extent, methodology and results of all avian, bat and other wildlife surveys conducted by the Applicant or its agents within or in the vicinity of the Facility will be provided in Exhibit 22(h). Shapefiles (labeled by year) will be provided to DPS and DEC of all avian surveys completed on-site that include: spring/fall raptor migration surveys, breeding bird surveys, eagle use surveys, and aerial eagle nest surveys per general stipulation #6 above.

xi. Summary of work studies prepared by the DOAS, including a summary of the telemetered golden eagle survey data, prepared as a result of an intervenor funding award.

e) 1001.22(e) Species list

The Applicant agrees to provide the information required by 1001.22(e), based on the information obtained in support of subpart (d) above and (h) below. A plant and wildlife species inventory will also be included based on existing data available from the NHP, NYSDEC staff, USFWS, local experts (e.g. DOAS), New York Breeding Bird Atlas (BBA), Hawk Migration Association of North America (HMANA), Christmas Bird Count (CBC), eBird, and on-site surveys.

f) 1001.22(f) Analysis of the impact of construction and operation

Exhibit 22(f) shall contain:

1. A summary narrative and associated mapping to explain and illustrate:

   i. Potential and expected construction and operational impacts to forest and grassland cover types.
   ii. Wildlife habitats and the species that they support (including a discussion of impacts from habitat fragmentation).
   iii. Wildlife concentration areas, if identified.
   iv. Travel corridors, if identified.
   v. Terrestrial organisms identified during pre-construction field studies in relation to the proposed limits of disturbance.

2. A discussion of any direct and indirect construction-related impacts that may occur to wildlife and wildlife habitat, including:

   i. incidental injury and mortality due to construction activity vehicular movement.
   ii. habitat disturbance and loss associated with clearing and earth-moving activities.
   iii. the indirect impacts of displacement of wildlife.

3. A discussion of potential direct and indirect operational impacts including:

   i. Loss of habitat.
   ii. Forest and grassland fragmentation as applicable.
   iii. Wildlife displacement.
   iv. Avian collisions.
   v. Bat collisions.

vi. To the extent any documented wildlife travel corridors or winter concentration areas are identified within or adjacent to the Facility Site, direct and indirect impacts to such corridors will be addressed.

4. A discussion of potential short- and long-term impacts to plants, animals, and habitats that may result from the application of biocides, if any, during site preparation, construction, maintenance, or operations.

5. A summary impact table quantifying anticipated temporary and permanent impacts associated with the various Facility components in relation to wildlife habitats, identified concentration areas or travel corridors (to the extent data associated with such areas or corridors are readily available or provided to the Applicant by NYSDEC personnel), and vegetation cover types classified according to *Ecological Communities of New York State* (Edinger et al, 2014), particularly grasslands and interior forests, if affected.

6. Information regarding the presence of federally and state-listed T&E species, SSC, and SGCN:

i) Discuss the Facility's potential to impact such species or their habitats.

ii) Documented T&E species, SSC, and SGCN will be based on database records obtained from the NHP, other known records documented by NYSDEC, USFWS, and on-site wildlife and habitat, ecological and wetland surveys prepared by the Applicant. A summary of the studies prepared by DOAS will be included in 22(d)(xi) above.

iii) A summary impact table containing information on all species within these categories will be compiled and included in the Application.

iv) If it is determined by the NYSDEC that construction or operation of the Facility is likely to result in estimated take of federally- or state-listed species, including the adverse modification of habitat on which a federally- or state-listed species depends, the Applicant will submit with the Article 10 Application an avoidance, minimization, and mitigation plan that demonstrates a net conservation benefit to each affected species pursuant to 6 NYCRR Section 182.11 (Part 182), along with the informational requirements of an Incidental Take Permit (ITP), as provided for in Part 182, including proposed actions to avoid or minimize direct impacts to listed species. If estimated direct impacts are unavoidable, the Application will discuss proposed minimization and mitigation measures, including how the proposed minimization actions will minimize impacts to the maximum extent practicable, and proposed mitigation actions to provide net conservation benefit for each affected state-listed species.

g) 1001.22(g) Avoidance and mitigation measures

A description of the impact avoidance and minimization efforts used in developing the Facility, as they pertain to vegetation, wildlife and wildlife habitat. The Facility design, construction controls, and operational measures that can be reasonably implemented to avoid or minimize direct and indirect impacts to wildlife and wildlife habitat within the Facility Site will also be described. Measures to avoid or mitigate direct and indirect impacts to vegetation will be addressed in part (c) of Exhibit 22. This will include a discussion of measures to avoid or minimize direct impacts to individuals of federally and state-listed and protected species such as through appropriate and effective turbine siting and operational curtailment regimes, and indirect impacts associated with habitat loss, fragmentation, and displacement. A proposal to mitigate, in an appropriate and timely manner, for unavoidable estimated direct impacts to federal or state T&E listed species will also be discussed. Measures to avoid or, minimize and mitigate impacts to vegetation will be addressed in part (c) of Exhibit 22. In addition, a detailed alternatives analysis will be addressed in Exhibit 9 (Alternatives), which will include discussion and

comparison of known, estimated, and expected impacts to wildlife and habitat at all alternative sites and the proposed Facility location.

h) 100.22(h) For proposed wind-powered facilities

A description of an avian and bat impact analysis and monitoring program for the Facility, including:

1) Per the PSS, numerous pre-construction avian studies were conducted to support the Article 10 Application. Based on the results of these studies, and standard industry practice, the Article 10 Application will discuss potential construction and direct impacts to avian and bat species. In addition, the Article 10 Application will include a cumulative impacts analysis to avian and bat species (particularly northern long-eared bat, migratory tree bats, golden eagle and bald eagle) that could result from operation of the Facility. This will include a discussion of the potential cumulative impacts of the Facility on bird and bat species and the habitats that support them with respect to the other wind energy project or turbines that are currently operating and proposed to be constructed at other sites nearby the Facility and in the state. For the purposes of Exhibit 22(h), "proposed project" or "proposed turbines" are defined as any project or turbines that are associated with a project for which a PSS has been submitted to NYSDPS, posted on the docket, and a case number assigned under Article 10 of the PSL, or are part of a project that has completed or is currently undergoing the State Environmental Quality Review (SEQR) process, for which there is a publicly available DEIS or FEIS document, as of the date of submission of the Application. The cumulative analysis will include:

   i) Wildlife and habitat impact analysis descriptions including an identification, evaluation, and assessment of direct and indirect Facility-related impacts to avian and bat species, particularly; federally and state-listed T&E species, SSC, SGCN, and their habitats; wildlife concentration areas; migration corridors; and forest and grassland habitats. The NYSDEC Region 7 Wildlife Office will be contacted to obtain the most recent breeding, wintering, and habitat data for state T&E species. The USFWS will be contacted to obtain the most recent breeding, wintering, and habitat data for federally T&E species.

      a. Avian and bat occupancy and usage of the Facility site will be compared with other proposed and operating wind energy projects located in New York operating wind energy projects throughout the northeastern US (Pennsylvania, New York, New Hampshire, Vermont, and Maine) and where publically available data are available.. Analyses will be based on a discussion and comparative analysis of the extent, methodology, and results of the pre-and/or post-construction wildlife studies conducted for the Facility, and other wind energy projects for which data are publicly available, as well as any additional information provided by NYSDEC and USFWS.
      b. A cumulative impact analysis will be done to evaluate the estimated direct impacts from the construction and operation of the Facility as they relate to other proposed and operating wind energy projects in New York. This analysis will minimally include discussion and/or calculations describing current installed wind capacity in New York as well as the estimated increase in installed New York wind capacity during the life of the Facility (30 years).

   ii) Cumulative Avian Impacts
      a. Based on the two years of eagle use surveys completed at the Facility, the 2013 USFWS Bayesian collision risk model will be run to determine the estimated direct take of bald and golden eagles at the Facility and compare that to the Local Area Population (LAP) per the USFWS Eagle Conservation Plan Guidance. Description of estimated bird mortality (birds/turbine/year and birds/MW/year) documented in New York state, in the past 20 years,

b. Description of estimated bird mortality (birds/turbine/year and birds/MW/year) annually and over the life of the Facility.
c. Description of estimated bird mortality across the northeastern US (Pennsylvania, New York, New Hampshire, Vermont, and Maine) based on publicly-available post construction avian data.

iii) Cumulative Bat Impacts
a. Description of bat mortality (bats/turbine/year and bats/MW/year) documented in New York state, in the past 20 years.
b. Description of estimated bat mortality (bats/turbine/year and bats/MW/year) annually and over the life of the Facility
c. Description of estimated bat mortality (bats/turbine/year and bats/MW/year) across the northeastern US (Pennsylvania, New York, New Hampshire, Vermont, and Maine) based on publicly-available post construction bat data.
d. Examine potential population effects of wind turbine caused mortality to migratory tree bats (eastern red bat, hoary bat and silver-haired bat).

iv) Habitat Fragmentation
a. Acres of each forest and grassland lost directly through clearing and cover type conversion
b. Acres of each forest and grassland lost indirectly due to functional loss/degradation of habitat (for the purposes of forest fragmentation analyses, it is assumed that indirect effects will extend up to 300 feet beyond the limits of disturbance).

2) The Application will provide information associated with a proposed post-construction monitoring program to be implemented to assess direct and indirect impacts of the wind facility on avian and bat species and their habitats in a manner consistent with the NYSDEC's Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects (Guidelines) (Revised June 2016). Exact details of the post-construction monitoring program will ultimately be determined on a site-specific basis through discussions between the Applicant, NYSDEC, NYSDPS and USFWS, and be in place prior to the start of project operation.

3) The Application will include:

i. An outline of the bird and bat avoidance and minimization techniques.
ii. Mitigation options for bird and bat impacts.
iii. A mitigation proposal with qualified and quantified expected benefits.
iv. potential monitoring and adaptive management responses and operational adjustments (i.e. appropriate curtailment regimes) to be implemented at the facility.
v. Support studies and reports (e.g., Avian Risk Assessment, Net Conservation Benefit Plans) which will describe compliance with the substantive requirements of 6 NYCRR Part 182, as well as measures to avoid, minimize, mitigate impacts to avian and bat species. This will include a discussion of a curtailment regime including operational details of cut in speed, seasonal dates, temperature and time, as well as data and discussion regarding the issues of the economic impact of any required curtailment.

i) 1001.22(i) Wetland maps[6]

[6] The Applicant recognizes that not all parties may execute Stipulation 22(i) and/or its subparts, including DPS. If a party does not agree to 22(i) the final executed stipulations will clearly indicate which parties do not agree to said stipulation.

1) Wetland maps will include:

i. Maps at a scale of 1:100, construction design scale, depicting the field-delineated wetlands.

ii. Determination of wetland boundaries based on on-site field investigations out to 500 feet from the area to be disturbed by the construction of the Facility, including on-site field investigations by a qualified individual to observe hydrology, vegetation and soil characteristics to define wetland boundaries which will be mapped using GPS technology with reported sub-meter accuracy. In addition, due to the proximity of actual disturbance within a 200-foot-wide survey corridor centered on linear Facility components and within 200 feet of the edge of non-linear components, wetland boundaries will be further defined based on on-site field investigations conducted in accordance with the three-parameter methodology described in the U.S. Army Corps of Engineers (Corps) *Wetland Delineation Manual,* and the appropriate *Regional Supplement to the Corps of Engineers Wetland Delineation Manual,* and freshwater wetlands regulated under Article 24 of the New York Environmental Conservation Law (ECL) will be determined according to methods described in the *NYSDEC Freshwater Wetlands Delineation Manual* (1995). All such wetland boundaries within a 200-foot-wide survey corridor centered on linear Facility components and within 200 feet of the edge of non-linear components will be defined in the field by sequentially numbered pink surveyor's flagging marked "wetland delineation," which will be located GPS technology with reported sub-meter accuracy.

iii. For the remainder of the Facility Site and adjacent properties without accessibility, initial surveys may be based on remote-sensing data, interpretation of published wetlands and soils mapping and aerial photography.

iv. Wetlands that are identified by the Corps or NYSDEC as jurisdictional. The Applicant will provide the results of the on-site delineation (including shapefiles) to a NYSDEC Regional wetland biologist to facilitate a site visit and ultimately a jurisdictional determination.

v. Wetlands identified by these methods will be referred to as "delineated wetlands", and wetlands that are verified by the Corps and NYSDEC will be referred to as "jurisdictional wetlands".

vi. All wetland delineation boundaries must be keyed to the submissions described in Exhibit 11 (Preliminary Design Drawings).

vii. Information on the onsite interconnections, and predicted presence and extent of wetlands on the remainder of site properties and adjacent properties within 500 feet of areas to be disturbed by construction, will also be included in the Application.

viii. Information will be provided indicating which delineated wetlands are likely state-regulated, including those that are part of wetland complexes that meet state-criteria for jurisdiction (e.g. 12.4 acres or larger, and/or support listed species) but are not currently mapped. All state-regulated wetlands will be identified by NYSDEC's alphanumeric code in addition to the code assigned by the Applicant during delineation. Investigation areas for wetland delineations may need to be extended to make these determinations. At a minimum, the desktop mapping approach described in Exhibit 22(i) will identify all wetlands that potentially meet state-criteria for jurisdiction.

ix. Maps at a scale of 1":50' depicting all Facility components, including proposed grade changes and limits of ground disturbance and vegetative clearing, field-delineated wetlands and adjacent areas, and predicted wetland boundaries and adjacent areas located of all areas to be disturbed by construction will be included in the Application. Shapefiles depicting the same will be provided to NYSDEC per general stipulation #6 above. The Application and its Exhibits shall be updated as needed with final wetland delineations, determinations, and the resulting impact calculations, following field visits by NYSDEC and the Corps. The delineation report that will be provided to the District Office of the Corps and the Regional NYSDEC office (and included with the Article 10 Application) will include the results of the field delineation (i.e., describe the location, size, community type and likely jurisdictional status of all delineated streams and wetlands).

j) 1001.22(j) Wetland descriptions

A description of the characteristics and Cowardin classification of all federally, state and locally regulated wetland communities, a summary table of the field data collected regarding vegetation, soils, and hydrology, and copies of all Wetland Determination Data Forms compiled into a Wetland and Stream Delineation Report and appended to the application.

k) 1001.22(k) Wetland assessment

A qualitative and descriptive assessment for each delineated wetland to assess functions and values based on a methodology similar to *The Highway Methodology Workbook Supplement, Wetlands Functions and Values: A Descriptive Approach* published by the U.S. Army Corps of Engineers New England District in 1999. The functions/values evaluated using this method will include:

1) Groundwater recharge/discharge.
2) Flood-flow alteration.
3) Fish and shellfish habitat.
4) Sediment/toxicant/pathogen retention.
5) Nutrient removal/retention/transformation.
6) Production export.
7) Sediment/shoreline stabilization.
8) Wildlife habitat.
9) Recreation.
10) Education/scientific value.
11) Uniqueness/heritage.
12) Visual quality/aesthetics.
13) Protected threatened or endangered species habitat.

l) 100.22(l) Off site wetlands

1) Analysis of hydrological connections to offsite wetlands supported by mapping as described in 1001.22(i)(2).

2) Based on evaluation of onsite wetland benefit impacts, consider any implications to related hydrologically or ecologically connected off-site wetlands.

3) The Application will include a description of the hydrologic connectivity of all wetlands within the Facility, including a summary of those wetlands anticipated to fall under NYSDEC jurisdiction (under Article 24 of the ECL) and Corps jurisdiction (under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act). Assessments of potential state wetlands jurisdiction will include both “mapped” and “unmapped wetlands” that meet NYSDEC’s 12.4-acre size threshold (including any wetlands of any size separated by less than 50 meters which function as a unit in providing wetland benefits, pursuant to 6 NYCRR Part 664, or otherwise meet state criteria for jurisdiction (e.g. wetlands or vernal pools determined to be of Unusual Local Importance, pursuant to 6 NYCRR 664.7(c)). A summary will be provided of off-site wetlands adjacent to the Facility and any disturbed areas that may be hydrologically or ecologically influenced or impacted by development of the Facility, and public lands, to determine their general characteristics and relationship, if any, to the delineated wetlands within the Facility.

m) 1001.22(m) Identification of temporary and permanent impacts to wetlands and their regulated adjacent areas

1) A quantification of temporary and permanent impacts to field delineated wetland boundaries (and any state-regulated 100-foot adjacent areas) based on the proposed footprint of all Facility components and associated impact assumptions. This assessment will also include a description of applicable permanent wetland forest conversion, if any, which would occur as a result of the construction, operation or maintenance of the Facility.

2) Such impacts will be summarized and presented in a table that shall:

   i. identifies and calculates the type of temporary and permanent impact and associated crossing methodology.
   ii. clearly discerning between federal and state wetland (and 100-foot adjacent area) impacts.
   iii. Include wetland delineation type.
   iv. For each resource explain if it could reasonably be avoided.
   v. Propose site specific actions to minimize impacts to resources that are not bypassed.
   vi. Propose site specific actions to mitigate impacts to resources that are not bypassed.
   vii. Identify the corresponding page number on preliminary design drawings depicting the resource.

3) Impacts to wetlands will also be presented on a separate set of site plan drawings at 1":50 scale, showing wetland boundaries, permanent and temporary structures, stream crossings, roads, power interconnects, and the limits of disturbance.

4) Calculation of impacts to both wetland and 100-foot adjacent areas of state-regulated wetlands will include the type of impact, including permanent or temporary fill and forest wetland conversion, and be provided in table format with associated delineation and NYSDEC code (as assigned at the time the application is filed), acreage of each type of impacts, and page number on the Preliminary Design Drawings.

n) 1001.22(n) Avoid and mitigate wetland impacts

A general discussion of measures considered, and indication of methods to be implemented to avoid wetland impacts, including stream crossing methodology, and a description of Facility construction and operation in relation to the standards established by ECL Articles 15 and 24. It is anticipated that direct impacts to wetlands and streams will be minimized by utilizing existing or narrow crossing locations whenever possible. Additional measures may include consideration of alternate siting or routing options, trenchless crossings (such as horizontal directional drilling (HDD) or other special crossing techniques), equipment restrictions, herbicide use restrictions, and erosion and sedimentation control measures. Exhibit 23 (Water Resources and Aquatic Ecology) will contain further discussion of how potential impacts to streams will be evaluated, avoided, minimized and mitigated. Where impacts are unavoidable, and have been minimized to the greatest extent possible, the anticipated mitigation measures to be implemented to offset impacts to wetlands (and state-regulated 100-foot adjacent areas) will be discussed, including the use of reasonable alternative stream and wetland crossing methods. Pursuant to 6 NYCRR 663.5(g), a conceptual mitigation plan for impacts to state-regulated wetlands and adjacent areas will be provided in the Application and will meet the following provisions:

1. The mitigation must occur on or in the immediate vicinity of the Facility (preferably within the same wetland);
2. The area affected by the proposed mitigation must be regulated by the Freshwater Wetlands Act and 6 NYCRR Part 663 after mitigation measures are completed, and;
3. The mitigation must provide substantially the same or more benefits than will be lost through the proposed activity.

An Environmental Compliance and Monitoring Program (ECMP) Plan will be provided, identifying the use of an Environmental Monitor(s) during construction and restoration activities, and the duties of the Environmental Monitor will be described.

o) 1001.22(0) State and federal endangered or threatened species

An identification of New York State and Federally listed T&E species documented within or adjacent to the Facility area, along with a discussion of all potential direct and indirect impacts to these species, and an Endangered Species Avoidance, Minimization and Mitigation Plan, if needed, will be provided in Exhibit 22(f).

p) 1001.22(p) Invasive species control plan

An Invasive Species Control Plan will be provided in Exhibit 22(b)identifying and indicating the presence of invasive species and the measures that will be implemented to prevent the introduction of new invasive species and minimize the spread of existing invasive species during construction, soil disturbance, vegetation management, transport of materials, and landscaping/revegetation. This plan will include a description of the monitoring and correction measures that will be implemented to ensure specified standards are met.

q) 1001.22(q) Impacts on agricultural resources

A quantification and analysis of temporary and permanent impacts of the construction and operation of the Facility and the onsite interconnections on agricultural land based on the proposed footprint of all Facility components and associated impact assumptions. To minimize impacts to active agricultural land, the Applicant plans to coordinate with the New York State Department of Agriculture and Markets (NYSDAM) and adhere to the *Guidelines for Agricultural Mitigation for Windpower Projects.* A discussion of potential mitigation, following the most recent edition of guidelines established by the NYSDAM will also be included. A map of the Facility Site showing locations of prime farmland, prime farmland if drained, unique farmland, and farmland of state and local importance, will be provided in Exhibit 21. This section of the Application will also discuss methods for identifying drainage tile lines prior to construction, along with restoration of any tile lines impacted by Facility construction activities. This information will also be referenced in Exhibit 4 (Land Use).

Stipulation 23– 1001.23 Exhibit 23: Water Resources and Aquatic Ecology

Exhibit 23 shall contain:

a) Information on groundwater including:

1) Maps, at a scale that supports legibility, showing depth to bedrock, depth to water table and karst features (if applicable) throughout the Facility area using Soils Survey of Broome County, New York and the results of the preliminary geotechnical investigation. A preliminary identification of locations that may require dewatering will be provided and proposed method(s) of dewatering (where needed) will be described. All proposed methods of dewatering will address concerns and requirements related to runoff and sediment transport as well as any other applicable requirements of the State Pollutant Discharge Elimination System (SPDES) General Permit (GP) 0-15-002. In addition, a Preliminary Stormwater Pollution Prevention Plan (SWPPP) addressing construction related to best management practices (BMPs) will be prepared and appended to the Application.

2) A map based on publicly available water well information from the US Geological Service (USGS) Office of Groundwater, US Department of Agriculture (USDA) Soil Conservation Service, USDA Natural Resources Conservation Service (NRCS) Web Soil Survey, New York State Department of Health (NYSDOH), Records Access Officer, the NYSDEC, the Broome County District Office, and other local municipalities, as well as from data collected during subsurface investigations in the Facility Site and a groundwater wells survey.
   i) This map will identify the following:
      (1) the Facility Area and the proposed locations of Project facilities;
      (2) delineated boundaries of all known groundwater aquifers and recharge areas, including the Clinton Street-Ballpark Valley Sole Source Aquifer (SSA) ;
      (3) general groundwater flow direction;
      (4) groundwater quality;
      (5) well-head and aquifer protection zones; and
      (6) the locations of all public and private groundwater wells (indicating whether each well location is approximate or confirmed) or other points of extraction of groundwater identified within the Facility's water well study area.
   ii) The water well study area will be defined as all groundwater wells (based on publicly available information) located within a one-mile radius of the Facility Site and all groundwater wells identified through water well surveys sent to all residences/businesses located within a 500-foot radius of the Facility Area and within one-half miles of blasting locations.
   iii) A table summarizing public and private water wells locations, and available well design and production information (including depth, yield, water quality and usage rates), to the extent publicly available and as provided in response to well surveys, will be included in the Application.
   iv) As part of the well surveys, the Applicant will include a summary of the project and the Article 10 process, contact information for Project personnel and a description of where the well owner can get more information about the project (i.e. project website, document repositories, etc.).
   v) GIS data will provided to the DPS and DEC per general stipulations #6 above.
3) An evaluation of potential groundwater impacts, including potential impacts to known public and private water supply wells, aquifer protection zones, and groundwater aquifers within the Facility Area. Plans for avoiding and minimizing impacts to wells and water supply resources will be discussed.
   i) A detailed analysis of the potential impacts of the Facility on the Clinton Street-Ballpark Valley SSA. Measures for avoidance and minimization of impacts to the SSA, particularly with respect to stormwater management, management of drilling fluids associated with HDD, and potential blasting operations, will be discussed.
   ii) Anticipated areas of dewatering during construction and operation of the Facility will be identified based on publicly available databases and geotechnical borings conducted at a sub-set of turbine locations. However, exact areas of dewatering cannot be known at the time of Application. The determination of long-term dewatering (if necessary) will be addressed during final geotechnical investigations to be conducted at each turbine location following Certification.
4) A preliminary identification of the source(s) of and collection system for water for construction period uses, including for concrete batch plant, invasive species wash station(s), fire control, and other uses will also be described. Final details associated with the design and layout of facilities for withdrawal and transport of source water may be provided post-Certification once the Applicant engages a BOP contractor.

b) Information on surface waters including:

1) A map, at a scale that supports legibility, identifying all surface waters, including intermittent and ephemeral streams and wetlands, within and adjacent to the Facility using data from the NYSDEC, ESRI, U.S. Geological Survey ("USGS"), National Wetlands Inventory (NWI), and data collected during the on-site wetland delineation. Stream mapping outside of these areas will be based on NYSDEC mapping and stream classifications and other mapping sources as applicable. These data will also be provided in tabular format able to be easily cross-referenced to maps. Shape files identifying the foregoing shall be submitted to NYSDEC and DPS Staff.
2) For each waterbody, a description of New York State listed Water Classification and Standards pursuant to 6 NYCRR Parts 800-941 and including Part Item Numbers, Water Index Numbers (WIN), physical water quality parameters, flow rate, biological aquatic resource characteristic (including species of vertebrates and invertebrates, habitat and presence of aquatic invasive aquatic species), and other characteristics of such surface waters, including intermittent streams, in the Facility Site using publicly available data, and when available, supplemented by field data collected during wetland and stream delineations, or information provided NYSDEC. Specific to invasive species, please note that common aquatic invasive species as identified by the NYSDEC (http://www.dec.ny.gov/animals/50272.html), which are observed while conducting delineations and field investigations, will be documented and included in the Application. Invasive species are further addressed in Exhibit 22 (Terrestrial Ecology and Wetlands).
3) An identification of all surface water drinking water supply intakes location both within one mile of the Facility and within the drainage basin in which the Facility is located, or, if none are located within one mile, the nearest downstream surface water drinking supply intake. Location(s) of the intakes will be given by longitude and latitude. A discussion of potential impacts to surface drinking water supplies due to construction and operation of the Facility will include a characterization of the type, nature, and extent of service provided from the identified source.
4) A narrative discussion will be provided that describes all potential impacts to surface water resources, including wetlands, streams and lakes. A calculation of the approximate acreage and linear distance of surface waters that would be temporarily or permanently impacted based on the proposed Facility footprint and associated impact assumptions, and field delineated stream boundaries. Such impacts will be presented in a table that:
   i) Identifies the stream name and classification;
   ii) identifies the type of impact and associated crossing methodology (e.g., buried collection, crossing in the dry, HDD, access road); and
   iii) describes the proposed avoidance and impact minimization measures,

   A map of all anticipated HDD locations in relation to surface water resources will also be included. A statement that BMPs and guidelines for crossing streams regulated under Article 15 will be developed in consultation with NYSDEC and NYSDPS.

5) The Application will identify reasonable avoidance, and where impacts are unavoidable, mitigation measures for groundwater and surface water impacts. Any work prohibition dates associated with crossings of State-protected streams under ECL Article 15 will be established in consultation with the NYSDEC. Proposed crossing methods will take into consideration the NYSDEC stream crossing guidelines. Proposed crossing methods will need to meet the NYSDEC stream crossing guidelines. The Applicant will provide NYSDEC and NYSDPS with final engineering plans for all stream crossings prior to the Siting Board's determination on whether to issue a certification pursuant to Article 10.

This section will also include a description of proposed measures to avoid and minimize local flooding, including a description of potential impacts to wetlands, surface water, and drinking water resources that could result from a major storm event during Project construction. The Applicant will work include a flood-mitigation strategy, for inclusion in the Application, which will include the following measures:

- Locating lay down areas or access road out of floodplains
- Removing construction equipment from floodplains prior to storm events when feasible
- Reinforce erosion controls in advance of storm events when feasible

c) Information on stormwater including:

1) Prior to commencement of construction activities, the Applicant will submit a NYSDEC Notice of Intent for Stormwater Discharges from Construction Activity and will seek coverage under the SPDES General Permit issued in January 2015 and effective on January 29, 2015 (modified July 15, 2015). This authorization is subject to review by NYSDEC, and is independent of the Article 10 process. However, the Article 10 Application will include a preliminary stormwater pollution prevention plan (SWPPP), which will be prepared consistent with the SPDES General permit and will describe in general terms the sediment control practices that will likely be implemented during construction activities, and the stormwater management practices that will be used to reduce pollutants in stormwater discharges after Facility construction has been completed. The Preliminary SWPPP will include
   i) an introduction and overview of the proposed project, and the purpose and need and appropriate contents of a complete SWPPP;
   ii) Description of anticipated stormwater management practices, including temporary and permanent erosion and sediment control measures (vegetative and structural);
   iii) Anticipated construction activities, include a preliminary construction phasing and disturbance areas;
   iv) Site waste management and spill control measures;
   v) Proposed site inspection and maintenance, including construction site inspections and record keeping; and
   vi) Conditions that will allow for the termination of permit coverage.
2) The Preliminary SWPPP identified in Stipulation 23(c)(1) above will be prepared in accordance with New York State Standards and Specifications for Erosion and Sediment Control (NYS Standards), and the New York State Stormwater Management Design Manual, and include typical information on permanent, post-construction erosion and sediment control measures (vegetative and structural), along with the anticipated stormwater management practices that will be used to reduce the rate and volume of stormwater runoff after construction has been completed. However, the Preliminary SWPPP will not include pre- or post-construction stormwater runoff calculations.

d) Information on chemical and petroleum bulk storage including:

1) A preliminary Spill Prevention, Containment and Counter Measures (SPCC) Plan that will be in place for the small volumes of chemical, petroleum or hazardous substances that may be stored on site. Spill containment requirements for electric transformers at the substation and turbines sites will be provided.
2) The Applicant agrees to provide the information required by 1001.23(d)(2). It is not anticipated that the Facility will require on-site storage or disposal of large volumes of any substances subject to regulation

under the State of New York's chemical and petroleum bulk storage programs (e.g. fuel oil, petroleum, etc.). If construction, operational, or maintenance activities at the Facility require petroleum or other hazardous chemicals be stored on site, the Application will identify such substances and demonstrate compliance with State laws, regulations, and guidelines.

e) Information on aquatic and invasive aquatic species including:

1) A discussion and analysis of the impact the construction and operation of the Facility is likely to have on critical and sensitive biological aquatic resources, particularly species listed as endangered, threatened, or species of special concern in 6 NYCRR Part 182, as well as species of greatest conservation need (SGCN), that are known or suspected of being present within the Facility. The analysis will include a discussion on, the potential for introducing and/or spreading invasive species. The presence of invasive species within the Facility site will be documented during wetland and stream delineations and other on-site investigations, as described in Exhibit 22 (Terrestrial Ecology and Wetlands). See Exhibit 22 and Exhibit 23(b)(2) for additional information on invasive species. Maps and shapefiles of the locations of aquatic invasive species will be provided to NYSDEC before the Application is submitted.
2) The Applicant agrees to provide the information required by 1001.23(e)(2). This will include a discussion of measures to avoid or minimize direct impacts to federally and state-listed and protected aquatic species such as through appropriate and effective Facility component siting. A proposal to mitigate, in an appropriate and timely manner, for unavoidable estimated direct impacts to federal or state T&E listed species will also be discussed and cross referenced with 22(g) if applicable. Construction activities and the presence of Facility components in occupied habitat of listed T&E aquatic species may constitute take of individuals or the habitat they depend on, or both. A proposal to mitigate, in an appropriate and timely manner, for unavoidable estimated direct impacts to federal or state T&E listed aquatic species will also be discussed. Measures to avoid or, minimize and mitigate impacts to vegetation will be addressed. In addition, a detailed alternatives analysis will be addressed in Exhibit 9 (Alternatives), which will include discussion and comparison of known, estimated, and expected impacts to listed aquatic species at all alternative sites and the proposed Facility location.

f) The Facility will not require cooling water, and therefore cooling water withdrawals will not be addressed in the Application.

Stipulation 24 – 1001.24 Exhibit 24: Visual Impacts

Exhibit 24 shall contain:

a) A Visual Impact Assessment (VIA) will be conducted to determine the extent, and assess the significance, of the Facility's visual impacts. The VIA procedures used for this study will be consistent with methodologies developed by various state and federal agencies, including the U.S. Department of the Interior, Bureau of Land Management (1980), U.S. Department of Agriculture, National Forest Service (1995), the U.S. Department of Transportation, Federal Highway Administration (1981), and the New York State Department of Environmental Conservation (NYSDEC, 2000). The components of the VIA will include identification of visually sensitive resources, viewshed mapping, confirmatory visual assessment fieldwork, visual simulations (photographic overlays), cumulative visual impact analysis, and proposed visual impact mitigation. The VIA shall include:

1) A 10-mile visual study area will be established for the purpose of identifying visually sensitive resources of regional and/or statewide significance. Note the study area includes New York State only. Although a 5-mile

study area is typical in some instances, a 10-mile study area will be used in order to identify any potential "significant resource concerns" beyond five miles that would warrant the use of a larger study area. A more inclusive inventory of locally significant visually sensitive resources will be conducted for the area within five miles of the proposed Facility. Distinct Landscape Similarity Zones (LSZs) within the visual study area will be identified, defined, and the approximate location of these LSZs will be illustrated in the Application.

2) Topographic and Vegetation viewshed maps will be created to identify potential visibility of wind turbines, and the methodology for these analyses is described in detail below in Stipulation 24(b)(2). Visual field review will be conducted in the study area. During these site visits, public roads and public vantage points will be visited to document locations from which the turbines would likely be visible, partially screened, or fully screened. This determination will be made based on the visibility of the distinctive Facility site ridges/landforms, as well as existing tall structures (such as silos and temporary meteorological towers) on the Facility site, which will serve as locational and scale references. These site visits will result in photographs from many (in excess of 100) representative viewpoints within the study area. The viewpoints will document potential visibility of the Facility from the various LSZs, distance zones, directions, visually sensitive resources, and areas of high public use throughout the visual study area. During the field review, photos will be taken using digital SLR cameras with a minimum resolution of six megapixels. All cameras will utilize a focal length between 28 and 35 mm (equivalent to between 45 and 55 mm on a standard 35 mm film camera). This focal length is the standard used in visual impact assessment because it most closely approximates normal human perception of spatial relationships and scale in the landscape. Viewpoint locations will be documented using hand-held global positioning system (GPS) units and high resolution aerial photographs (digital ortho quarter quadrangles). The time and location of each photo will be documented on all electronic equipment (cameras, GPS units, etc.) and noted on field maps and data sheets. The results of the field review will be presented in detail with visual aids in the VIA.
3) When applicable, access roads will be included in all visual simulations in which they would be visible. With respect to any proposed overhead collection line, representative photographs from built facilities will be included in the Application, based on preliminary design of overhead collection lines, photo-simulations will be included in the Application.
4) Photographic simulations developed by constructing a three-dimensional computer model of the proposed turbine and turbine layout based on specifications and coordinates provided by the manufactures. Along with the turbines, proposed clearing limits and the location and appearance of proposed meteorological towers or other visible components of the Facility, including overhead collection lines and substation facilities, will also be incorporated into the photographic simulations.
5) The potential visibility of FAA warning lights for the proposed turbines is described in Stipulation 24(b)(1) below. Exterior lighting at other Facility components such as the O&M building or substation will also be described in the Application.
6) Photographic simulations developed by using Autodesk 3ds Max Design 2015® (or similar) to create a simulated perspective (camera view) to match the location, bearing, and focal length of each existing conditions photograph. Existing elements in the view (e.g., buildings, existing transmission structures, roads) will be modeled based on aerial photographs and DEM data in AutoCAD Civil 3D 2014® (or similar). A three dimensional ("3-D") topographic mesh of the landform (based on DEM data) will then be brought into the 3-D model space. At this point minor adjustments are made to camera and target location, focal length, and camera roll to align all modeled elements with the corresponding elements in the photograph.

7) The VIA will include a discussion of short term visual impacts associated with the clearing of trees, construction of access roads, erection of turbines and transmission structures, and general construction activity.
8) An evaluation of impacts to visual resources from Facility operation by a panel of three registered landscape architects using a standardized rating form. The methodology utilized in this evaluation will be a simplified version of the U.S. Department of the Interior, Bureau of Land Management (BLM) contrast rating methodology, and the rating form instructions will also be included with the Application.
9) A Facility-specific shadow flicker analysis using WindPRO software and the associated shadow module. Input variables and assumptions used for shadow flicker modeling calculations for the proposed Facility will include:

    i) Latitude and longitude coordinates of proposed wind turbine sites
    ii) The rotor diameter and hub height of the largest turbine model under consideration
    iii) Latitude and longitude coordinates for residential structures (both participating and non-participating), schools, office buildings, storefronts, or known public recreation areas (e.g., campgrounds; trailheads within State Forest land) located within a 10 rotor diameter radius of all proposed turbine locations (the shadow flicker study will be limited to the area defined by 10 times the rotor diameter of the turbines)
    iv) USGS 1:24,000 topographic mapping and USGS digital elevation model (DEM) data (10-meter resolution)
    v) Annual wind rose data
    vi) The average monthly percent of available sunshine for the nearest National Oceanic and Atmospheric Administration weather station
    vii) The Applicant will work with the Towns to identify, within the 10 rotor diameter radius study area, any officially-announced planned land use developments, such as residential sites or community buildings, under review or already approved for site plan development or building permit issuance at the time of filing the Application. All data obtained will be used in the shadow flicker assessment. In addition, shadow flicker contours that are generated by the WindPRO software will be overlain on mapping of known public recreational areas (e.g., trails, state forest land). The analysis shall report exposure in number of days per year, hours per year, and maximum minutes per day.
    viii) The results of the shadow flicker analysis will be presented in a stand-alone Shadow Flicker Analysis report to be appended to the Application.

For ease of identification and comparison, both the shadow flicker study prepared for Exhibits 15 and 24 and the sound study prepared for Exhibit 19 will use the same definition of “sensitive receptor” and will employ a common receptor labelling system. Impact analysis will include a table showing those nonparticipating sensitive receptors anticipated to receive noise in excess of applicable standards, and shadow flicker in excess of applicable standards, if any. Shadow flicker mapping must indicate receptor identification number/ID.

10) An assessment of various visual impact mitigation strategies including screening (landscaping), architectural design, visual offsets, relocating or rearranging Facility components, reduction of Facility component profiles, alternative technologies, Facility color and design, and lighting options. Mitigation will also be assessed in relation to NYSDEC Program Policy DEP-00-2 (NYSDEC, 2000).

11) Identification and description of all visually sensitive resources (see (b)(4) below for additional information) within the visual study area (i.e., up to 10 miles from the perimeter turbines), and assessment of probable impacts of the facilities on these resources. Visually sensitive resources will also include any specific location identified by municipal planning representatives, DPS, DEC and OPRHP.

b) A viewshed analysis will be included in the VIA that identifies the locations within the visual study area where it may be possible to view the proposed wind turbines and other proposed above ground facilities from ground-level vantage points. This analysis includes identifying potentially visible areas on viewshed maps. The viewshed analysis methodology includes:

1) Maps showing the results of viewshed analysis prepared based on the screening effect of topography alone, and the combined screening effect of mapped forest vegetation and topography will be prepared. Viewshed analysis will be based on maximum blade tip height, FAA warning light height, and the height and location of proposed overhead transmission structures. These maps will be presented on both USGS DEM Hillshade and the most recent edition 1:24,000 scale topographic base map. Additionally, results of the viewshed analysis will also be shown on maps that depict visually sensitive sites, viewpoint locations, foreground, mid-ground, and background distances, and LSZs. The viewshed analyses will serve to document the line of sight profiles for resources of statewide concern.
2) Ten-mile radius viewshed maps to determine the extent of potential turbine visibility based on existing topography and vegetation, and the location and height of the proposed wind turbines. Topographic viewshed maps will be prepared using 10m USGS DEM data (7.5-minute series), coordinates/dimensions of all proposed turbines, an assumed viewer height of 1.7 meters, and ESRI ArcGIS® software with the Spatial Analyst extension. The viewshed analyses will be based upon the largest turbine model contemplated for this Facility so as to present a worst-case scenario, and the location of all proposed turbines. The analyses run at blade tip height illustrates maximum potential day time visibility, while the analyses run at the height of the FAA aviation warning light defines maximum potential nighttime visibility (based on the anticipated FAA lighting plan). The resulting topographic viewshed maps define the maximum area from which any turbine within the completed Facility could potentially be seen within the study area (ignoring the screening effects of existing vegetation and structures). A vegetation viewshed will also be prepared to illustrate the potential screening provided by forest vegetation. The vegetation viewshed will be prepared in the same manner as the topographic viewshed, except that a base vegetation layer was created using the 2011 USGS National Land Cover Dataset (NLCD) to identify the mapped location of forest land (including the Deciduous Forest, Evergreen Forest, and Mixed Forest NLCD classifications) within the visual study area. Based on standard visual assessment practice, the mapped locations of the forest land will be assigned an assumed height of 40 feet and added to the DEM.
3) Identification of visually sensitive resources using a variety of data sources including digital geospatial data (shapefiles) obtained primarily through the NYS GIS Clearinghouse or ESRI, national, state, county and local agency/program websites as well as websites specific to identified resources; the DeLorme Atlas and Gazetteer for New York State; USGS 7.5-minute topographical maps; and web mapping services such as Google Maps. Identified aesthetic resources of statewide or local significance, areas of intensive land use within five miles of the proposed Facility, and location of visually sensitive resources within the visual study will be included with the Application. Visually sensitive resources will also include any specific location identified by municipal planning representatives, DPS, DEC and OPRHP.
4) Identification of representative viewpoints to be used for visual simulations. Representative viewpoints will be selected based upon the past and future consultation with, and feedback provided by, municipal planning representatives, DPS, DEC and OPRHP; while also balanced by the criteria below to ensure that a variety of views are represented. The Applicant will continue to conduct outreach to agency staff and stakeholder groups to determine an appropriate set of viewpoints for the development of simulations. This

outreach is expected to include: a) The Applicant has distributed a request to appropriate agency personnel, municipal representatives, and other visual stakeholders, seeking feedback regarding the identification of important aesthetic resources and/or representative viewpoints in the Facility vicinity to inform field review efforts and the eventual selection of candidate viewpoints for the development of visual simulations; b) Following the visual fieldwork and associated data processing, the Applicant will distribute a memorandum related to recommendations for Visual Simulations to the visual stakeholders and c) The Applicant will solicit comments from the visual stakeholders on the viewpoints selected. Based on this input, the Applicant will make final viewpoint selections based on consultation with DPS, DEC, and OPRHP (per 1001.24(b)(4)(vi)) based on the following criteria:

i) Illustrate open, representative views from the various "Landscape Similarity Zones" within the visual study area, which are defined based on the similarity of features such as landform, vegetation, water, and land use patterns.
ii) Provide open views toward the Facility site from different directions throughout the visual study area (as determined through field verification).
iii) Illustrate the most open views available from potentially significant public resources within the visual study area.
iv) Illustrate open views of the proposed Facility that may be available to representative viewer/user groups within the visual study area.
v) Illustrate views of different numbers of turbines and other Facility infrastructure, from a variety of viewer distances and directions, and under different lighting/sky conditions, to illustrate the range of visual change that could occur with the Facility in place.

The Applicant will include a list of the visual stakeholders and copies of its viewpoint selection correspondence in the Application. In addition, the Applicant will include the visual representatives on the master stakeholder list for notification of project milestones and outreach activities.

5) Photo-realistic simulations of completed turbines and other visible Facility infrastructure (including overhead collection lines, and substations) from each of the selected viewpoints. Viewpoints will be selected, in part, for their open views and as such there will be no significant screening of the proposed Facility due to vegetation in the photographic simulations. Therefore, it is not anticipated that both leaf-on and leaf-off simulations will be prepared.
6) Due to the typical height of individual turbines and the geographic extent of a given wind power Facility, mitigation measures such as screening of individual turbines with earthen berms, fences, or planted vegetation will generally not be effective in reducing visibility. Therefore, additional simulations specific to mitigation of turbines are not anticipated. Simulations of the collection and POI substations (inclusive of battery storage) and/or O&M Building will include proposed screening and/or proposed plantings.
7) A composite contrast rating for each viewpoint. All rating forms will be included in the Application along with a narrative description of the existing view and overall visual effect representing the nature and degree of visual change resulting from construction and operation of the Facility on scenic resources and viewers represented by each of the selected viewpoints using comments provided by the rating panel members.
8) The shadow flicker analysis will be conducted as described in Stipulation 24(a)(9).

Stipulation 25 – 1001.25 Exhibit 25: Effect on Transportation

Exhibit 25 shall contain:

a) A conceptual site plan that will identify access road locations and widths, the approximate number of turbines to be accessed per road and other access roads associated with staging yards, O&M site, possible batch plant, and substation/switchyard locations. The preliminary design drawings prepared in support of Exhibit 11 will satisfy the requirement for the site plan required by this subpart. In addition, a Route Evaluation Study will be prepared for the Facility and included in the Article 10 Application, which will identify public road constraints (e.g., inadequate turning radii/intersections and road widths) and potential haul routes.

b) A description of the pre-construction characteristics of roads in the area including:

    1) Data will be obtained from the New York State Department of Transportation (NYSDOT) Traffic Data Online Viewer to review existing traffic volumes along proposed approach and departure routes for the Facility. Accident information along those routes contained in the Accident Location Information System (ALIS) will be requested from the local police agencies and/or NYSDOT regional office. These data will be compared with the Transportation Study Area, which will be identified and presented in the Application. However, the final haul routes ultimately will be defined in coordination with the BOP contractor and turbine manufacturer. Final haul routes will be reviewed in consultation with the Towns in accordance with any Road Use Agreement.
    2) The Application will include a review of school district routes for those districts that serve the Facility Site. This will be accomplished by obtaining school bus routes, number of buses, and times from the Windsor Central School District and Deposit Central School District that serve the Facility Site.
    3) The Application will include a review of locations of emergency service provider stations (police, fire, ambulance, and hospitals) that serve the Facility Site and specific routes currently used within the vicinity of the Facility Area, based on consultation with local emergency service providers. A map of all emergency service provider locations and routes will be provided in the Application, and following construction will be posted in the Facility's O&M building (and provided to the emergency service providers). All turbines will be identified by a unique 911 ID/address.
    4) The Applicant's consultant will drive all potential haul routes roads to identify Load Restricted Bridges and/or roadways along the proposed approach and departure routes for the Facility. For non-posted bridges along those routes, information from the NYSDOT's Highway Data Services website will be reviewed to determine potential load capacity restrictions. In addition, consultations with local highway supervisors will be summarized in the Application.
    5) The Facility site is not within a congested urbanized area, therefore the parties agree 24-hour traffic counts are not applicable and will not be included in the Application.

c) Exhibit 25(c) will contain an estimate of Facility trip generation characteristics, including:

    1) An estimate of the number, frequency and timing of construction vehicle trips will be based on the haul routes, site plan, and location of turbines as presented in the Application, along with the number of phases, estimated quantities of materials to construct Facility. Exact scheduling of construction work and required vehicles will be determined by the Applicant's contractor. Therefore, the study to be conducted and included in the Application will only provide an estimate based on typical volume of materials and number

of vehicles per turbine installation. Estimates will include anticipated truck weights. The Application will tabulate construction vehicle volumes for the Facility broken down by Facility component/truck type.

2) Information and routes regarding trucks carrying water, fuels, or chemicals.
3) An estimate, based on site plan and location of turbines in the Application, of anticipated quantities of earthwork and materials to construct facilities. An estimate based on typical volume of materials and number of vehicles per turbine installation will be provided.
4) Please note that the final haul routes cannot be determined until the turbine manufacture has been selected and has reviewed and approved, or amended, the haul routes, and therefore the final haul routes will be provided prior to Facility construction. However, conceptual haul routes will be identified by an experienced transportation engineer, the details of which will be included in the Application. Approach and departure routes will be based on the anticipated type of delivery vehicle to be used, and such routes will also be identified to and from the facility site (or parking areas) for construction workers and employees of the facility.

d) Exhibit 25(d) will contain an analysis of traffic and transportation impacts of the Facility, including:

1) A summary of levels of service for linear segments of highways used by construction and delivery vehicles using highway capacity software, which will be compared to the existing levels of service. The anticipated extent and duration of traffic interferences/delays during construction will be described.
2) A Route Evaluation Study that will include anticipated delivery routes and an analysis of the adequacy of these routes (including information associated with roadway conditions, width, bridges, and culverts) to accommodate construction and operation of the Facility. This section of the Application will also include an identification of the possible extent and duration of traffic interferences resulting from construction of the Facility and any interconnections.
3) An assessment of over-size load deliveries and the adequacy of existing roads to accommodate such deliveries. A turning template of anticipated delivery vehicles and a review of aerial photography and online street view maps in conjunction with driving all potentially impacted roads will be conducted to identify physical restrictions (widths, turning radius, overhead clearance). An identification of required temporary improvements and a location map will be provided and potential impacts at each temporary improvement location will be summarized. However, all improvements identified in the Application will require verification and/or update following Certification when the final turbine supplier is identified.
4) Identification of measures to mitigate traffic and transportation impacts, which will be presented in the Route Evaluation Study. This analysis will include any time restrictions regarding delivery of facility components.
5) This section of the Application will identify and tabulate all anticipated Town, County, and State permits that will be required for construction and post-construction use of public roads, including highway work permits and special use permits from the NYSDOT. The Applicant will consult with the host communities to formalize a road use agreement (RUA). A draft copy of the RUA will be included as an Appendix to the Application. This section of the Application will also generally discuss use agreements with private landowners that may be required for construction and post-construction use of private property along public roads. The Application will provide a description of all use and restoration agreements, per 1001.25(d)(5).

e) The Application will provide a description of the Facility components and potential aviation impacts in relation to the local airports.

f) The Application will provide a discussion of the aeronautical studies for the proposed Facility along with a discussion of potential impacts to air traffic control and air navigation. This section of Exhibit 25 will also include:
   1. A statement that the Applicant has submitted a Notice of Proposed Construction to the administrator of the FAA.
   2. Copies of this correspondence and responses received at the time of filing and a statement noting that the Applicant will provide updated correspondence and future determination(s) of any on-going aeronautical studies to DPS.
   3. The Applicant's correspondence with airports and heliports (and any other requirements of 1001.25(f)(2)), if applicable.
   4. The Application shall include all information required by 1001.25(f)(3), including descriptions of the responses received in reviews and consultations detailed in 1001.25(f)(1) and (2).

Stipulation 26 – 1001.26 Exhibit 26: Effect on Communication

The Applicant agrees to provide the information required by 1001.26(a-f). Exhibit 26 will also include an evaluation of potential impacts to data communication for the NYS Mesonet System. Further, this Exhibit will include information on the potential impacts of the Facility on local emergency communications systems.

a) The Applicant will consult with and submit Project specifications for evaluation to the Department of Commerce's National Telecommunications Information Administration (NTIA). The Application will include any government telecommunications concerns about the proposed Facilities and will identify any potential impacts that will have to be addressed in coordination with relevant federal agencies. This section will include a summary of coordination to date between the Applicant, NTIA, or any other agencies and will include information such as determinations(s) made, any elimination of Facility components, or mitigation requirements or recommendations provided through the notification process to NTIA.

   Additionally, the Application will include a description of the National Weather Service Radar Operations Center (ROC) impact zones in the vicinity of weather surveillance radars. Figures will be included depicting locations of Facility components within any of the impact zones, if applicable. Applicant will include a description of Facility changes made or required mitigation actions resulting from tower proposals within ROC impact zones, if applicable. If applicable, details regarding weather radar stations impacted (including the radar station based in Binghamton if applicable) near the Facility Site will be included in this section. This description will include existing ground elevations and line of site from the radar to the turbine locations. The Application will also identify any specific Facility turbines that are located within any of the impact zones.

Stipulation 27 – 1001.27 Exhibit 27: Socioeconomic Effects

The Applicant agrees to provide the information required by 1001.27.

The Application will include estimates of the impact that the proposed Facility may have on the economy including:

1) On-site labor impacts (including peak construction employment level, and an estimate of the number of jobs and the on-site payroll, by discipline, during a typical year of operation).

2) Local revenue and supply chain impacts.
3) Induced impacts associated with the construction and operation of the Facility.

Stipulation 28 – 1001.28 Exhibit 28: Environmental Justice

Exhibit 28 shall contain a statement that the Facility and Off-site Ancillary Facilities are not expected to have any impacts on Environmental Justice areas. This exhibit will also contain a map showing the Facility and Off-site Ancillary Facilities relative to the nearest potential Environmental Justice Area.

Stipulation 29 – 1001.29 Exhibit 29: Site Restoration and Decommissioning

Exhibit 29 shall contain:

a) The Applicant agrees to provide the information required by 1001.29(a).
b) The Applicant agrees to provide the information required by 1001.29(b); the Application will also include:
    1) A detailed estimate to support the proposed decommissioning and site restoration funding upon the cessation of operation of the Facility, based on the expected turbine model(s) to be used and actual decommissioning costs from other similar projects, if available;
    2) A section describing that financial assurance in the full amount of the decommissioning and site restoration estimate will be provided in the form of letters of credit to be held by the Towns of Windsor and Sanford. The Applicant, Towns, and DPS will work together towards finding an acceptable form of letter of credit and acceptable agreement regarding the submittal of decommissioning and site restoration estimates.
    3) The Applicant shall include in the plan, a discussion on notifying Towns and landowners prior to decommissioning and site restoration activities.
    4) The Applicant shall include a description of proposed decommissioning activities and schedule for completion of these activities.
c) The Applicant agrees to provide the information required by 1001.29(c).
d) Information related to nuclear power facilities will not be included in the Application.

Stipulation 30 – 1001.30 Exhibit 30: Nuclear Facilities

Exhibit 30: Nuclear Facilities is not applicable to the Facility, and therefore will not be addressed in the Application.

Stipulation 31 – 1001.31 Exhibit 31: Local Laws and Ordinances

During preparation of the Application, the Applicant will continue its consultation with the municipalities whose requirements are the subject of Exhibit 31 to determine whether all such requirements have been correctly identified, and to determine whether any potential request by the Applicant that the Board elect not to apply any such local requirement could be obviated by design changes to the proposed Facility.

The Application will include information on only those Local Laws and Ordinances applicable in the municipalities in which the Facility is proposed to be located at the time of Application. At this time, the Facility is proposed in the Towns of Windsor and Sanford, in Broome County and therefore this Stipulation includes potentially applicable Local

Laws and Ordinances from those towns and Broome County. The Application will contain, in Exhibit 31, only those Local Laws and Ordinances for Broome County and the towns in which the Applicant proposes to locate the Facility.

a) An updated list of applicable local ordinances, laws, resolutions, regulations, standards, and other requirements of a procedural nature required (at the time of Application submittal) for the construction (including maintenance of construction equipment) or operation of the proposed Facility. A copy of all local laws obtained by the Applicant and/or provided by the host municipalities, including maps, figures, tables and other attachments to local laws (assuming such information is readily available), will be included as an appendix to the Application.

The procedural local laws and ordinances potentially applicable to the Facility as currently proposed include[7] the following:

Town of Windsor (Windsor Town Code)

- Chapter 43, Prohibiting the Deposit and/or Tracking of Certain Material Onto Town Highways and Streets
  - § 43-4 Enforcement and Penalties
- Chapter 49, Property Maintenance Code
  - Procedural only. Addresses enforcement of Property Maintenance Code. Contains no substantive provisions.
- Chapter 50, Fire Prevention
  - Per version on Town website, Chapter 50 was replaced by Law #3-2006, which enacted Chapter 53, Uniform Fire Prevention and Building Codes.
- Chapter 51, Flood Damage Prevention[8]
  - Article III, § 51-6 Applicability and 51-10 Penalties
  - Article IV, § 51-13 Development Permit
  - Article VI, Variance Procedures
- Chapter 53, NYS Uniform Fire Prevention and Building Codes
- Chapter 68, Noise Control (as amended in 2016)

  The Town of Windsor agrees that Chapter 68-9 exempts the Facility from the provisions of the Town's Noise Code.
- Chapter 93, Zoning
  - § 92-21, -21.1 and -21.2 Commercial Site Plan Review
  - § 92-29, -29.1 and -29.2 Industrial Site Plan Review
  - § 93-44 Building Permits
  - § 93-45 Certificate of Occupancy/Compliance

[7] This section will include all procedural local ordinances enacted up to the time of Application.

[8] It is not known at this time whether any components of the Bluestone Wind Project will be proposed in designated special flood zones in the Town of Windsor, which would trigger these regulations. They are included here as potentially applicable, in order to provide a comprehensive overview of potentially applicable local laws.

- § 93-47(B) and (C) Variances and Special Permits
- § 93-48 Procedures
- Article XI Special Use Permits
- § 93-53 Special Permit Uses in Flood Hazard Districts
- § 93-54 Special Permits for Uses within Flood Fringe
- § 93-55 Special Permits for Uses within Floodway
- § 93-56 Development Plan
- § 93-61 Penalties

Town of Sanford

Sanford Laws 1 and 2 of 2017 on renewable energy systems

- Article XIV, Section 1402.2(B) Site Plan Approval and Special Use Permit Required
- Article XIV, Section 1402.3 Special Permits
- Article XIV, Section 1402.4 Application Requirements
- Article XIV, Section 1402.5(F)(1) Viewshed Studies
- Article VIX, Section 1402.5(F)(4) Bird/Bat Migration Studies
- Article XIV, Section 1402.5(G)(2) Ownership Changes
- Article XIV, Section 1402.5(G)(3) Modifications
- Article XIV, Section 1402.5(H) Certifications
- Article XIV, Section 1402.5(I) Public Hearing
- Article XIV, Section 1402.6 Abandonment of Use
- Article XIV, Section 1402.7 Wind Measurement Towers [post-Certification]
- Article XIV, Section 1406 Additional Requirements for Special Permits

Local Law No. 1 of the year 2012 A Local Law of the Town of Sanford Regulating Driveway Design Standards

- Section 6 Application for Driveway Building Permits
- Section 8 Certificates of Insurance
- Section 9 Maintenance Bond and Letter of Credit
- Section 10 Indemnity and Save Harmless
- Section 14 Penalties

Local Law No. 2 of the year 2008 A Local Law of the Town of Sanford Regulating Excavations in Streets and Highways Within the Town and Prohibiting Certain Types of Vehicles

- Section 2 Obstructions
- Section 3 Excavations
- Section 7 Certificates of Insurance
- Section 8 Maintenance Bond and Letter of Credit
- Section 9 Indemnity and Save Harmless
- Section 10 Exceptions
- Section 15 Penalties

Local Law No. 2 of the year 2011 A Local Law entitled Town of Sanford Road Preservation Law

- Section 5 Permanent Weight Restriction and Truck Route
- Section 6 Requirement that a Vehicle Permit be Obtained by High Frequency Truck Traffic
- Section 7 Permit Issuing Authority and Enforcement Authority
- Section 8 Application and Permit Form
- Section 9 Alternative to Permit: Road Use Agreement
- Section 11 Insurance
- Section 12 Maintenance Bond and Letter of Credit
- Section 13 Indemnity and Save Harmless
- Section 15 Stop Work Orders
- Section 16 Revocation of Permit
- Section 17 Special Conditions and Exclusions
- Section 18 Violation of Local Law; Penalties
- Section 20 Escrow
- Section 21 Request for a Waiver

Local Law No. 5 of 2006 A Local Law Providing for the Administration and Enforcement of the New York State Uniform Fire Prevention and Building Code

- Procedural requirements only. No substantive provisions.

Broome County

Local Law No. 4 of 2010 A Local Law Creating Chapter 100 of the Broom County Charter and Code Providing that a Special Hauling Permit Shall Be Required for Use of County Roads by Certain Vehicles that Exceed the Weight or Dimensional Limits in Section 385 of the Vehicle and Traffic Law of the State of New York

- Chapter 100-2. Permit Requirement
- Chapter 100-3. Application Form
- Chapter 100-4. Permit Form
- Chapter 100-5. Insurance
- Chapter 100-7. Indemnity and Save Harmless
- Chapter 100-8. Stop Work Orders
- Chapter 100-9. Revocation of Permit
- Chapter 100-10. Special Conditions and Exclusions.
- Chapter 100-11. Violation of Local Law; Penalties

Broome County Sanitary Code Article IV Sewage Disposal and Water Supply

- Section 305-15 Sewage disposal systems; prohibited discharged
- Section 305-16 Approval required for sewage disposal system
- Section 305-17 Approval required for private water supply

b) To the extent that the County or Towns require permits or other approvals for work performed on County or Town roads or within the municipalities' right of way, at this time, it is the Applicant's intent to request that the Board expressly authorize the County or Towns to issue such permits or alternatively enter into RUAs with the Applicant. The Applicant will work with the County and Towns to follow their procedural and substantive requirements for the permitting of highway work permits. Highway work and similar road permits are primarily

an issue of local concern and ministerial in nature provided the Applicant meets the applicable standards. To the extent that the County requires permits or other approvals under Article IV of the Sanitary Code it is the Applicant's intent to request that the Board expressly authorize the County to retain the authority to issue such permits or approvals as such approvals are primarily an issue of local concern, are routine matters and ministerial in nature provided the Applicant meets the applicable standards.

c) The Applicant agrees to provide the information required by 1001.31(c). Due to the complex and specialized nature of the Facility, the Applicant will arrange with the Towns to pay for consultant services for review, approval, inspection, and compliance certification for work required to comply with the New York State Uniform Fire Prevention and Building Code, and the Energy Conservation Code of New York State. For a wind powered electric generating facility, this work typically is limited to turbine foundations and operation and maintenance buildings. The Towns will engage the services of a qualified independent engineer or engineering firm (the "On-Site Monitor") who will be responsible for: (a) review of the Company's building plans, (b) recommending approval of building plans to the Applicant, (c) assisting the Towns' codes enforcement officer or any of the representatives of the Town with inspecting the Applicant's compliance with the New York State Uniform Fire Prevention and Building Code, and (d) certifying such compliance which shall be evidenced by the issuance of Certificates of Completion and Temporary Certificates of Completion.

d) The Application will include an updated list of applicable local ordinances, laws, resolutions, regulations, standards, and other requirements of a substantive nature required (at the time of Application submittal) for the construction or operation of the proposed Facility, including local wind energy laws and substantive Wind Overlay Zone requirements. Copies of zoning, flood plain, and similar maps, tables and/or documents related to local substantive requirements will be included in the Article 10 Application.

The substantive local laws and ordinances potentially applicable to the Facility as currently proposed include[9] the following:

Town of Windsor (Windsor Town Code)

- Chapter 43, Prohibiting the Deposit and/or Tracking of Certain Material Onto Town Highways and Streets
  - § 43-3 Activities Prohibited
- Chapter 51, Flood Damage Prevention
  - Article V, § 51-15 General Standards
  - Article V, § 51-16 (B) Specific Standards, nonresidential construction
  - Article V, § 51-17 Floodways
- Chapter 93, Zoning
  - § 93-5 (A) Application of Regulations
  - Permitted Principal and Accessory Uses in Zoning Districts: §§ 93-10 and -11 (R-14 Residential); 93-17 and -18 (A Agricultural); 93-22 and -23 (C Commercial); 93-30 and -31 (I Industrial)

The Town of Windsor agrees that because Facility components are only proposed in the A Agricultural District that the Facility is a permitted use and the height limitations for other zoning districts does not apply in the A Agricultural District.

  - Height Regulations in Zoning Districts: §§ 93-12 (R-14); 93-25 (C); and 93-33 (I)

[9] This section will include all substantive local ordinances enacted up to the time of Application.

- Lot Size and Area Restrictions in Zoning Districts: §§ 93-13 through 93-15 (R-14); 93-19 through 93-20 (A); 93-26 through 93-27 (C); 93-32, -34 and -35 (I)
- Off-Street Parking in Certain Zones: §§ 93-28 (C) and 93-36 (I)
- § 93-52 Permitted Uses in Flood Hazard District
- § 93-54 Flood-Fringe Provisions
- § 93-55 Floodway Provisions

The Town of Windsor agrees that Chapter 68-9 exempts the Facility from the provisions of the Town's Noise Code.

Town of Sanford

Sanford Land Use Management Laws, Local Law Number 1 of 1992, as amended, up to and including Local Laws 1 and 2 of 2017 on renewable energy systems

- Article IV Use Schedules
- Article XIV, Section 1402.2(B) Commercial WECS Permitted as indicated in Schedule of Regulations in Section 403
- Article XIV, Section 1402.5 Standards for Design
- Article XIV, Section 1402.7(C)(1)-(4) Standards for Wind Measurement Towers

Local Law No. 1 of the year 2012 A Local Law of the Town of Sanford Regulating Driveway Design Standards

- Section 3 Design Standards
- Section 4 Construction Specifications
- Section 5 Maintenance

Local Law No. 2 of the year 2008 A Local Law of the Town of Sanford Regulating Excavations in Streets and Highways Within the Town and Prohibiting Certain Types of Vehicles

- Section 3 Damages
- Section 5 Restoration
- Section 6 Guarding of Excavations
- Section 11 Uses Prohibited

Local Law No. 2 of the year 2011 A Local Law entitled Town of Sanford Road Preservation Law

- Section 10 Damage to Town Roads

Broome County

Local Law No. 4 of 2010 A Local Law Creating Chapter 100 of the Broome County Charter and Code Providing that a Special Hauling Permit Shall Be Required for Use of County Roads by Certain Vehicles that Exceed the Weight or Dimensional Limits in Section 385 of the Vehicle and Traffic Law of the State of New York

- Chapter 100 - 5. Damage to County Roads

In addition, Broome County has enacted extensive laws governing management and disposal of solid waste, some of which may be applicable to the Facility during construction and operation. Broome County Administration Legislation,

Chapter 317, Solid Waste. To the extent such laws are applicable; the Facility will comply with all applicable local substantive provisions relating to solid waste disposal during construction and operation of the Facility.

e) The Applicant agrees to provide the information required by 1001.31(e).
f) The Applicant agrees to provide the information required by 1001.31(f).
g) The Applicant agrees to provide the information required by 1001.31(g).
h) The Applicant agrees to provide the information required by 1001.31(h).
i) A summary table that has two columns, one consisting of applicable substantive requirements to the Facility and the second containing a description of how the Applicant plans to adhere to those requirements. To the extent that the Applicant intends to seek relief from substantive local zoning requirements, the Application will identify those requirements and explain why they would be unreasonably burdensome as applied to the Facility.
j) Identification of the zoning designation or classification of all lands constituting the Facility site, and a statement indicating if the Facility would be considered a permitted use in accordance with the zoning ordinance or local laws.

Stipulation 32 – 1001.32 Exhibit 32: State Laws and Regulations

The parties hereby stipulate and agree to the following:

a) The following is a complete listing of state approvals, consents, permits, or other conditions of a procedural nature which may be required for the construction or operation of the proposed Facility, as summarized in the following table:

Table 2.32-1. List of All State Approvals for the Construction and Operation of the Facility that are Procedural in Nature and Whether supplanted by PSL Article 10

State Agency	Requirement	Discussion
New York State Department of Environmental Conservation	Water Quality Certification (WQC), Section 401 of the Clean Water Act	The request for a 401 WQC will not be filed until a federal U.S. Army Corps of Engineers permit application is filed (if necessary). Under the Siting Board regulations, the WQC will be issued by the Siting Board.
New York State Office of Parks, Recreation, and Historic Preservation (OPRHP)	Consultation Pursuant to §14.09 of the New York State Historic Preservation Act	The Applicant has initiated (and will continue) consultation with the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) to ensure compliance with §14.09 of the New York State Historic Preservation Act.
New York State Department of Environmental Conservation	Endangered and Threatened Incidental Take Permit Article 11, 6 NYCRR Part 182	The NYSDEC may issue a license or permit to "take" any species listed as endangered or threatened. This permit may be required if, in consultation with state agencies, it is determined that the project could result in incidental take of any state-listed endangered or threatened fish or wildlife species from occupied habitat. If this permit is required, the procedural requirements are supplanted by Article 10.

State Agency	Requirement	Discussion
New York State Department of Environmental Conservation	Permit for Protection of Waters Article 15, 6 NYCRR Part 608	This permit would be required for the crossing of protected streams by Facility components. Protected streams are particular portions of streams designated by the NYSDEC with one of the following classifications: AA, AA(t), A, A(t), B, B(t) or C(t). The permit is required for any change, modification, or disturbance of any protected streams, streambeds, or stream banks. If this permit is required, the procedural requirements are supplanted by Article 10.
New York State Department of Environmental Conservation	Permit for Freshwater Wetlands Article 24, 6 NYCRR Part 663	This permit would be required for the crossing of regulated freshwater wetlands or adjacent areas by Facility components. Regulated freshwater wetlands are designated and mapped by the NYSDEC, and are generally 12.4 acres or larger. Around every regulated freshwater wetland is an adjacent area of 100 feet that is also regulated to provide protection for the wetland. If this permit is required, the procedural requirements are supplanted by Article 10.
New York State Department of Environmental Conservation	SPDES General Permit for Construction Activity	This permit is required for construction projects that disturb one or more acres of soil. In accordance with 16 NYCRR 1001.32(a) this is identified as a state procedural requirement issued by the NYSDEC pursuant to federal recognition of state authority. This approval is subject to review by the NYSDEC independent of the Article 10 process.
New York State Public Service Commission	Certificate of Public Convenience and Necessity NY PSL §68	No electric corporation shall begin construction of an electric plant, having a generating capacity of at least 80 MW, without first having obtained the permission and approval of the commission. The procedural requirements of Section 68 are supplanted by Article 10.
New York State Department of Transportation (NYSDOT)	Special Use Permit for Oversize/Overweight Vehicles (OS/OW), New York State Vehicle and Traffic Law § 385	Special hauling permits from the NYSDOT are required for loads that exceed legal dimensions or weights. Although these ministerial permits are supplanted by Article 10, the Applicant will request that the Siting Board authorize the NYSDOT to issue these permits.
New York State Department of Transportation	Highway Work Permit, New York State Highway Law, Article 3, § 52	The use of New York State highway rights-of-way (ROW) must be carried out in accordance with terms and conditions of a highway work permit issued by NYSDOT. The proposed Facility may need such a permit for any temporary road improvements in the New York State highway ROW. Per the discussion below, these permits are not supplanted by Article 10.
New York State Department of Transportation	Highway Use and Occupancy Permit, 17 NYCRR Part 131	The installation of utility facilities, including transmission lines, in highway rights-of-way must be carried out in accordance with the terms and conditions of a highway use and occupancy permit issued by NYSDOT. The proposed Facility may need such a permit to construct improvements in the New York State highway ROW. Per the discussion below, these permits are not supplanted by Article 10.

As indicated in the table above, some of these state procedural requirements are supplanted by PSL Article 10, except for permits to be issued by the NYSDEC pursuant to Federal recognition of State authority, or pursuant to federally delegated or approved authority, in accordance with the Clean Water Act, the Clean Air Act (as implemented by the State Pollutant Discharge Elimination System), and the Resource Conservation and Recovery Act, and permits pursuant to Section 15-1503, Title 9 of Article 27, and Articles 17 and 19 of the ECL, unless the

Board expressly authorizes the exercise of such authority by the state agency. In addition, certain grants of authority for property rights are not supplanted by Article 10.

In this case, authority to issue the SPDES General Permit for Stormwater Discharges from Industrial Activity has been delegated to NYSDEC under the Clean Water Act. As a result, the Applicant must comply with both the procedural and substantive requirements of the permit in conjunction with constructing the Facility. The decision whether to authorize coverage under the General Permit will be made by NYSDEC under its delegated SPDES program.

Consistent with the Siting Board's order granting the Certificate of Environmental Compatibility and Public Need issued to Cassadaga Wind LLC (Case No. 14-F-0490), highway use and occupancy permits (17 NYCRR Part 131) and highway work permits (NYS Highway Law Article 3, § 52) issued by the New York State Department of Transportation (NYSDOT) represent the issuance of property rights that are not superseded by Article 10. As a result, to the extent such permits are required to construct the Facility, the Applicant must comply with both the procedural and substantive requirements of these permits. The decision whether to authorize issuance of these permits will be made by NYSDOT.

b) The Applicant agrees to provide the information required by 1001.32(b).
c) The Applicant agrees to provide a list of all state approvals, consents, permits, or other conditions of a substantive nature which may be required for the construction or operation of the proposed Facility, including:
   i. Water Quality Certification (WQC), Section 401 of the Clean Water Act 6 NYCRR Part 621.4e (Water Quality Certifications in Accordance with Section 401 of the Clean Water Act)
   ii. Consultation Pursuant to Section 14.09 of the New York State Historic Preservation Act
   iii. Endangered and Threatened Incidental Take Permit Standards Article 11, 6 NYCRR Part 182.12
   iv. Permit for Protection of Waters, Article 15, 6 NYCRR Part 608.7b (Permit Application Review) and 608.8 (Standards)
   v. Permit for Freshwater Wetlands, Article 24, 6 NYCRR Part 663.5 (Standards for Issuance of Permits and Letters of Permission)
   vi. SPDES General Permit for Construction Activity, Article 3, 6 NYCRR Part 750-1.11 (Application of Standards, Limitations, and other Requirements)
   vii. NYS PSL Section 68 Certificate of Public Convenience and Necessity for Construction of Electric Plant
   viii. Special Use Permit for OS/OW Vehicles, NYS Vehicle and Traffic Law § 385
   ix. Highway Work Permit, New York State Highway Law, Article 3, § 52
   x. Highway Use and Occupancy Permit, 17 NYCRR Part 131
d) The Applicant agrees to provide the information required by 1001.32(d).
e) To the extent that off-site ancillary features, which are not considered part of the Major Electric Generating Facility are needed a list of all state approvals, consents, permits, certificates, or other conditions for the construction and operation of said offsite ancillary features will be listed in the Application.

Stipulation 33 – 1001.33 Exhibit 33: Other Applications and Filings

Exhibit 33 shall contain:

The Applicant agrees to provide the information required by 1001.33, along with any current participation by the Applicant, that is in the public domain, in renewable energy markets/RFPs.

Upon specific written request, the Applicant will provide the Towns with copies of any other public applications or filings which are related to the Applicant's Article 10 Application.

Stipulation 34 – 1001.34 Exhibit 34: Electric Interconnection

Exhibit 34 shall contain:

a) The Applicant agrees to provide the information required by 1001.34(a).
b) The Applicant agrees to provide the information required by 1001.34(b).
c) The Applicant agrees to provide the information required by 1001.34(c).
d) The Applicant agrees to provide the information required by 1001.34(d).
e) The Applicant agrees to provide the information required by 1001.34(e).
f) The Applicant agrees to provide the information required by 1001.34(f).
g) The Applicant agrees to provide the information required by 1001.34(g).
h) The Applicant agrees to provide the information required by 1001.34(h).
i) The Applicant agrees to provide the information required by 1001.34(i).
j) There are no cathodic protection measures expected to be required for installation of the underground systems, as no metallic pipelines are anticipated to be used. Therefore, cathodic protection measures will not be discussed further in this Exhibit.

Stipulation 35 – 1001.35 Exhibit 35: Electric and Magnetic Fields

Exhibit 35 shall contain:

a) The Application will identify each ROW segment with unique EMF characteristics, which will be evaluated in the EMF study.
b) For each of the unique ROW segments, the EMF study will provide both base case (where existing facilities are present) and proposed cross sections that show:

    1) Any known overhead electric transmission, sub-transmission, and distribution facilities showing structural details and dimensions and identifying phase spacing, phasing, and any other characteristics affecting EMF emissions;
    2) Any known underground electric transmission, sub-transmission (i.e., 34.5 kV collection system), and distribution facilities;
    3) All underground gas transmission facilities;
    4) All ROW boundaries; and
    5) Structural details and dimensions for all structures (dimensions, phase spacing, phasing, and similar categories) and an overview map showing locations of structures.
c) The Applicant will provide a set of aerial photos/drawings showing the exact location of each unique ROW segment and each cross-section, and any residences or occupied buildings within the ROW segments. If no residence or occupied building is within the ROW segments, the measurement of the distance between the

edge of the ROW segment and the nearest residence or occupied building will be provided.

d) The Application will include an EMF study with calculation tables and field strength graphs calculated at one meter above ground level with five-foot measurement intervals depicting the width of the entire right of way and out to 500 feet from the edge of the right of way on both sides for each unique ROW cross section. The EMF Study will also include:

1) A signature and stamp/seal by a licensed professional engineer registered and in good standing in the State of New York.
2) The name of the computer software program used to model the facilities and make the calculations.
3) The EMF study will model the strength and locations of electric fields to be generated by the Facility. Modeling will be conducted at rated voltage, and the measurement location and interval will be described in the Application. Electric field strength graphs depicting electric fields along the width of the entire ROW, and out to 500 feet from the edge of the ROW on both sides, will be included in the EMF study. Digital copies of all input assumptions and outputs for the calculations will be provided under separate cover.
4) The EMF study will model the strength and locations of magnetic fields to be generated by the Facility. Modeling will be conducted at rated voltage, and the measurement location and interval will be described in the Application. There is no expected change in amperage under any of the following conditions: summer normal, summer short term emergency, winter normal, winter short term emergency. Therefore, the magnetic field modeling to be performed will be applicable to any of these conditions. Magnetic field strength graphs depicting magnetic fields along the width of the entire ROW and out to the property boundary of the Facility will be included in the EMF study. Digital copies of all input assumptions and outputs for the calculations are being provided under separate cover.
5) There is no expected change in amperage in maximum average load initially versus for 10 years after initiation of operation. Therefore, the modeling of magnetic fields described above in 1001.35(d)(4) (including both the graphs and tables included in the EMF study) will be applicable to both initial operation and operation after 10 years.
6) The generator lead line will be constructed within a new ROW created specifically for the proposed Facility; there are no existing power lines within this ROW. Consequently, this requirement does not apply to the proposed Facility and will not be addressed in the EMF study or the Application.

Stipulation 36 – 1001.36 Exhibit 36: Gas Interconnection

Exhibit 36: Gas Interconnection is not applicable to the Facility, and therefore will not be included in the Application.

Stipulation 37 – 1001.37 Exhibit 37: Back-up Fuel

Exhibit 37: Back-up Fuel is not applicable to the Facility, and therefore will not be included in the Application.

Stipulation 38 – 1001.38 Exhibit 38: Water Interconnection

Exhibit 38: Water Interconnection is not applicable to the Facility; however, water supply needs for the concrete batch plant and at the O&M building or other Facility facilities will be explained in the Application.

Stipulation 39 – 1001.39 Exhibit 39: Wastewater Interconnection

Exhibit 39: Wastewater Interconnection is not applicable to the Facility; however, wastewater treatment at the O&M building or other Facility facilities will be explained in the Application.

Stipulation 40 – 1001.40 Exhibit 40: Telecommunications Interconnection

Generally, it is not anticipated that the Facility will require telecommunication interconnections as defined by Article 10, 16 NYCRR 1000.40, in that new off-site telecommunication lines are not anticipated at this time. Exhibit 40 shall contain:

a) information on the Facility's meter location, the means of providing the operational data to National Grid, and the secure communications network for this operational data.
b) information regarding a high-speed internet (T-1 or other provider) to be established, and the means of transmitting the necessary data and other information to the appropriate parties for monitoring and reporting purposes.

Stipulation 41 – 1001.41 Exhibit 41: Application to Modify or Build Adjacent

Exhibit 41: Application to Modify or Build Adjacent is not applicable to the Facility, and therefore will not be included in the Application.

IN WITNESS WHEREOF, the parties hereto have caused identical counterparts of this Agreement, each of which shall constitute an original, to be duly executed and delivered:

Bluestone Wind, LLC
As to all Stipulations identified above agree:

By:_____
Name: _____
Dated: _____

New York State Department of Public Service
As to all Stipulations identified above agree:

By:_____
Name: _____
Dated: _____

New York State Department of Environmental Conservation
As to all Stipulations identified above agree:

By:_____
Name: _____
Dated: _____

New York State Department of Health
As to all Stipulations identified above agree:
By:_____
Name: _____
Dated: _____

New York State Department of Agriculture and Markets
As to all Stipulations identified above agree:
By:_____
Name: _____
Dated: _____

Town of Windsor
As to all Stipulations identified above agree:
By:_____
Name: _____
Dated: _____

Town of Sanford
As to all Stipulations identified above agree:
By:_____
Name: _____
Dated: _____

Delaware Otsego Audubon Society
As to all Stipulations identified above agree:
By:_____
Name: _____
Dated: _____