



Albany Office

100 Great Oaks Boulevard | Suite 114 | Albany, New York 12203

P: 518.382.1774

October 6, 2021

Mr. Tim Reilly, Chairperson
Town of Glen Planning Board
7 Erie Street
Fultonville, NY 12072

Re: Town of Glen
Reynolds Road Wind Energy Project
Our Project No. 67-1901

Dear Mr. Reilly:

We are in receipt of the Building Permit Application dated September 1, 2021, Full Environmental Assessment Form (FEAF) Part 1 dated September 1, 2021, the Landowner Authorization from Lease dated June 8, 2021, the Site Use Plans dated September 2, 2021, the Decommissioning Plan dated August 31, 2021, and the Stormwater Pollution Prevention Plan (SWPPP) Report dated September 1, 2021. The project is located at 411 Reynolds Road, Fultonville, New York 12072 and involves the construction of a single 4.3 MW wind turbine, gravel pad, crane pad, and run of overhead electrical lines and poles off Reynolds Road on approximately 4.64 +/- acres of the total 191.60 +/- acres (tax map id 100.-5-8). Based on a review of the documents, we have the following comments:

Building Permit Application

1. The applicant did not identify an answer to Question 3 on the application form. The applicant should identify the zone district the project is located in.

FEAF Part 1

1. Question B.h. – the box is not ticked “yes”. Additionally, the U.S. Fish and Wildlife Service (FWS) is in charge of enforcing the Migratory Bird Treaty Act and the Golden Eagle Protection Act. The FWS is responsible for issuing permits under these acts. The FWS Land-Based Wind Energy Guidelines require Wind-Energy Developers to adhere to these guidelines and obtain proper applicable permits before construction. Applicant shall review these guidelines and certify that they are being complied with and that proper permits will be acquired before work begins.
2. Question C.3.a was not complete. The applicant indicated the site of the proposed action is located in a municipality with an adopted zoning law or ordinance but did not identify what the zoning classification is in the subsequent question.
3. Question C.4-d: Parks in the vicinity of the project site should be listed. Tribes Hill Community Park and Auriesville Pilgrimage Lunch Area should be considered at a minimum, they are within a ten-mile radius of the site.
4. Question D.2.b.i was not complete. The applicant indicated that the proposed action would result in alteration of an existing wetland but did not identify the wetland in the subsequent question. The applicant should provide the name, water index number, wetland map number or geographic description of the affected wetland.
5. Questions D.2.b.ii-v were not answered. The applicant should review these questions and provide answers as applicable.



CONNECTING. CREATING. CONSERVING. COMMUNITY.

www.primeeng.com

6. Question D.2.e.ii has not been answered. The applicant should describe the new types of point sources of stormwater runoff.
7. Question D.2.e.iii mentions sheet flow into natural drainage but plans show grass lined swales. The answer to this question should be revised to be more comprehensive of actual intent of the site's stormwater management.
8. Question D.2.f has not been answered. The applicant should indicate if the proposed action will include or use more or more sources of air emissions. If yes, the applicant should answer the following questions D.2.f.i-iii.
9. The applicant has indicated in question E.1.a.i there are a mix of uses that occur on or adjoining the project site. The applicant should answer question E.1.a.ii and provide a general description in respect to the mix of uses.
10. Question E.2.h.iv is incomplete. The applicant should indicate the name of the existing wetland on the project site. the results from the EAF mapper only state "federal waters" so is their answer of "federal waters" acceptable?
11. Question E.2.m has not been answered. The applicant should identify the predominant wildlife species that occupy or use the project site.
12. Question E.3.h.iii has not been answered. The applicant should provide the distance between the project and the resource identified in question E.3.h.i in miles.

Site Use Permit Plans

1. "Wind Tower" is a Special Permitted Use within the Rural Residential District in section 87-11. There are currently no setback requirements, or minimum and maximum regulations regarding Wind Towers in the Town of Glen Town Code. We have written our recommendations for review based on NYS wind-power guidelines and comparable municipal codes in NYS.
2. Sheet C-0.0 has blank information regarding survey data and horizontal/vertical datum. However, topography is included in the plans. These blanks should be filled in promptly.
3. Sheet C-0.0 notes refer to the Town of Deruyter. This appears to be an incorrect reference and should be updated.
4. Sheet C-0.0, Erosion and Sediment Control Measures, Comment 9 states that "sediment collected... shall be disposed of on the site on a regular basis." This seems to imply that sediment collected on the site shall be disposed of on the site. Which does not seem like the appropriate disposal technique of collected sediment. If this is not the intention of the note, the note should be revised. If that is the intention of the note, we would ask the applicant to reconsider.
5. The Town of Glen Code requires Site Plans to use a scale one-inch equals twenty feet or less. The submitted Site Use Plan uses scales of one-inch equals thirty, forty, sixty, and three hundred. We find these scales to be legible and acceptable.
6. Contours are shown at two-foot (2') intervals. We find this to be acceptable.
7. In the EAF Part 1, the applicant indicates there will be external lighting on the proposed site. The details of the proposed lighting including location, height, intensity, bulk type, direction of illumination and methods to eliminate potential glare onto adjoining properties should be provided on the Site Plans. Lighting plan should be submitted to and reviewed by the Federal Aviation Administration for any structure 200' or higher off the ground. **
8. Wind turbine towers should be white in color. **
9. No advertising signs are allowed on any part of this wind facility. **
10. No tower shall be lit except to comply with Federal Aviation Administration (FAA) requirements. **



11. The 4.64 acres of disturbance as indicated in the EAF should be identified in location and type of disturbance on the plans.
12. Proposed crane pad and turbine pad/foundation details should be provided for review. Dimensions of these features should be provided.
13. There is a dotted-dashed line under the proposed access route where the feature crosses the existing wetlands (this is not the proposed culvert). This feature appears to be directly north-east of the proposed culvert. Applicant should identify this feature and its purpose.
14. At the site entry-way on the north side of the proposed access route, proposed grading seems to show proposed higher elevations (1098.5') at the existing wetlands, what is the purpose of performing this higher elevational grading at this location and beginning the swale here?
15. Circles that almost appear to have hooks coming out of them are not identified in the legend, nor done so with a leader. We may presume these are power poles, but they should be clearly identified in the plans. Additionally, if these are power poles, are they not required from the turbine all the way to the entryway of the site? There seems to be a long distance without additional support.
 - a. Linetype that is connected to these symbols should be identified with a leader.
16. EAF mentions nearly 20% of the site has the presence of bedrock outcroppings. Applicant should indicate these bedrock outcroppings on the plans.
17. For general clarity – the “temporary truck route” that loops around the proposed pad, equipment, and turbine is the only “temporary” section for access, correct? And the rest of the 20’ and 40’ wide access road will be permanent, until the site is decommissioned, correct? The “temporary” route should clearly be identified on the plans.
18. Applicant should identify all existing and proposed above and below ground utility lines on the Site as well as transformers, the interconnection point with transmission lines, and other ancillary facilities or structures including accessory facilities or equipment. **
19. Applicant should provide a Landscaping Plan.
20. Applicant should provide details for access route throughout the site.
21. Applicant should show traffic flow patterns in and around the site.
22. Details for the proposed filter strips should be included in the site plans.
23. Guy wires shall not be permitted except to address specific safety issues. **
24. We recommend the Town employ a setback requirement of 1,500’ from residences. The applicant should prove that this setback is met. **
25. Wind tower shall be located no less than 1.5x the total height of the wind turbine or 500 feet from the off-site property boundaries and public roads **
26. Facilities should be gated and/or fenced to prevent unrestricted public access to the facility. **
- 27.

SWPPP

1. In section 3.1 – removal of erosion and sediment control features should be specific, as 80% of vegetation must be established before erosion control practices can be removed – this should be stated.
2. Construction sequence should also include the maintenance of erosion and sediment control practices as required throughout construction.
3. In Section 3.2, it is stated that it is never intended for the site to exceed 5-acres of disturbance. The last sentence of the first paragraph is written as follows: “If, at any time, the disturbance drops below the 5-acre threshold, the Contractor shall advise the Regional Office in writing.” This wording indicates that the plan for the site is already above the 5 acre threshold. This sentence should be rephrased for cohesiveness.



4. In Section 3.5, Step 1.a indicates an exclusion area determined by the landowner. It would be beneficial for the record to have this area identified on the plans.
5. Anticipated location of filter strip that is planned to be the post-construction stormwater management practice should be identified on the plans.
6. Please advise where it is not required by NYSDEC to show volume controls for 1-year, 10-year, and 100-year storm events if it can be shown that there is less than a 2.5% increase to the peak flow during a 1-year event and less than a 5% increase during 10-year and 100-year events? It appears that changes to peak flow in the NW sub-catchment area during a 1-year storm event is an increase of 7.6%. 10 yr and 100 yr peak flows are less than an increase of 5% but the 1-year storm events do not meet this criteria that is mentioned. The tables should show the percentage of increase of peak flow for each subcatchment for each type of storm.
7. Channel Protection Volume, Overbank Flood Control, and Extreme Flood Control were not designed for as it is stated on page 6 that "...this method of analysis is not in accordance with the requirements of the SWDM..." what method of analysis is being described here? If this is in regard to the design of the proposed filter strips, that should be mentioned here more explicitly.
8. Section 3.6 should include essentially an Operation and Maintenance manual of all Erosion and Sediment Control Practices that will be implemented for this SWPPP.
9. Section 4 states that "The Town" will be owner/operator. This does not seem like an accurate statement. If it is not, the sentence should be revised.
10. An inspection schedule should be identified in the SWPPP.
11. An example weekly inspection template should be included in the SWPPP. This should include all items listed in Part IV.C.4 of the General SPDES Permit.
12. The Contractor Certification should have specific elements of the SWPPP that each contractor will be responsible for implementing – per Part III.A.6 of the General SPDES Permit.
13. The size of the proposed filter strips is not identified in the SWPPP. This should be revised.
14. It is understood that figure 1 contains a map of the site, however, per Part III.B.1.b requires SWPPP to have a site map/construction drawings for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge(s)*.
15. A schedule should be included to identify the timing of implementation of each erosion and sediment control practice and the minimum time frames that each should remain in place or be implemented.
16. SWPPP should include the dimensions, material specifications, installation details and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils.
17. SWPPP should include a description of the pollution measures that will be used to control litter and construction debris, as to prevent it from becoming a pollutant source to stormwater discharge.
18. Stormwater Modeling and Analysis Report should include maps showing pre and post development conditions including watershed/subcatchment boundaries, flow paths, routing and design points.
19. Soil testing locations and results should be included in the Stormwater Modeling and Analysis Report.

General Wind Energy Based Comments



1. We recommend the Planning Board require pre and post construction impact surveys be conducted in accordance with the NYSDEC Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects by the applicant. These studies will document bird and bat mortality rates at the site and can be submitted to the NYSDEC for research. * The applicant should solicit input from NYSDEC on such studies and should follow their protocol. **
2. Why is such a large tree clearing area required as part of this construction when a lot of the site is currently meadow-type land cover that could easily be used for wind farming and would not require the same level of clearing that could be damaging to wildlife and habitat? *
3. Were interruptions to microwave communications, point-to-point, off-air television reception, radar, land mobile radio (LMR), cellular and PCS telephones, AM radio coverage, and amateur radio operations considered in the development of these plans for this wind project? If no, applicant should consider how this wind project may impact these modes of communication. If yes, what are the anticipated effects of the wind project on these modes of communication? How does the applicant intend to mitigate these effects? *
4. Has a visual impact analysis been performed with consideration of the following steps?
 - a. Determine turbine locations and heights*
 - b. Mapping of scenic resources of statewide significance as defined by the NYS Department of Environmental Conservation Visual Policy, and of local significance**
 - c. Determine the viewshed*
 - d. Description of the character and quality of the affected landscape**
 - e. Identify key viewpoints* Provide photographic simulations of what the proposed project will look like from a reasonable number of representative viewpoints within the 5-mile radius study to be selected in consultation with the Planning Board **
 - f. Assess existing conditions*
 - g. Document project changes*
 - h. Analyze changes*
 - i. Develop mitigation where needed*
5. We recommend the applicant study likelihood of *shadow flicker* on neighboring parcels, including parcels across the street of the proposed wind facility. *
6. We recommend the applicant perform a noise study on both the proposed wind turbine and any proposed equipment set to stay on site for the lifetime of the turbine. The study should include the types of sound expected of the proposed turbine and the decibels expected from all proposed equipment at the surrounding property lines. * Such noise study should be prepared to determine predicted sound at off-site property lines and residences from operation of the proposed turbine. Such analysis should be referred to as “Wind Turbine Only Sound”. “Wind Turbine Only Sound” shall be predicted based upon appropriate ambient sound levels obtained from field or lab measurements of the proposed wind turbine, as well as appropriate background sound levels of the site and nearby off-site areas. This analysis should show that the proposed location of the wind turbine will not exceed 50 dB(A) at off-site property lines and 45 dB(A) at surrounding residences. If the proposed wind turbine contains a pure tone component, it shall be located so that “Wind Turbine Only Sound” at off-site property lines shall not exceed 45 dB(A) at off-site property lines and 40 dB(A) at surrounding residences. **
 - a. A pure tone is defined to exist when 1/3 octave band noise level exceeds arithmetic average of the two adjacent 1/3 octave band levels by the following





Albany Office

100 Great Oaks Boulevard | Suite 114 | Albany, New York 12203
P: 518.382.1774

<u>Band Range</u>	<u>Exceedance</u>
31.5-125 Hz	15 dB(A)
160-400 Hz	8 dB(A)
500-8,000 Hz	5 dB(A)

7. Applicant should supply a post construction noise monitoring plan which shall, at a minimum, require annual certification by the permittee or applicant that the Wind Energy Facility remains in conformance with the requirements as stated as above. **
8. It is understood that this project is under 25 MW and therefore not required to seek permits through Article 10 process, or Office of Renewable Energy Siting through New York State. *
9. Are proposed wind turbines International Electrotechnical Commission (IEC) certified? *
10. We recommend the applicant post signs on the site that warn of falling ice in applicable areas. *
11. We recommend the applicant post signs on the site that warn of any danger in regard to electrical equipment or other hazard. We recommend that a 24 hr emergency number be posted at the site. *
12. A fire protection and emergency response plan to address emergency response and coordinate with local emergency response providers during any construction or operation phase emergency, hazard, or other event should be provided by the applicant. **
13. Applicant should supply photos and manufacturer's specifications of the proposed turbine model – Including decibel data, and material safety documentation for all materials used in the operation of the equipment. **
14. Applicant should provide a construction schedule describing anticipated commencement and completion dates, including a traffic analysis with a description of the routes to be used by construction and delivery vehicles. **
15. Applicant should provide photos to the town before and after construction of the Town's public road system to show that no damages have occurred. If damages have occurred, applicant will be responsible for costs and repair work to repair such damages. **
16. A transportation plan describing routes to be used in delivery of project components, equipment and building materials and those to be used to provide access to the Site during and after construction. This plan should also describe any anticipated improvements to existing roads, bridges or other infrastructure, as well as measures which will be taken to restore damaged/disturbed access routes following construction. **
17. Applicant should provide an O&M plan to provide regular periodic maintenance schedules, any special maintenance requirements and procedures and notification requirements for restarts during icing events. **
18. Applicant should provide an assessment of potentially impacted wetland, surface and groundwater resources, and the geology and land use of the site, as well as an assessment of construction phase impacts, traffic impacts and adverse sound impacts that may arise from the project construction. **
19. Wind turbine towers should be white in color. **
20. No advertising signs are allowed on any part of this wind facility. **
21. No tower shall be lit except to comply with Federal Aviation Administration (FAA) requirements. **
22. All wind turbines shall have an automatic braking, governing, or feathering system to prevent uncontrolled rotation, overspeeding and excessive pressure on the tower structure, rotor blades and turbine components. **
23. The minimum distance between the ground and any part of the rotor or blade system shall be 30 feet. **



Decommissioning Plan

1. The height of the turbine in the Decommissioning Plan (344') differs from that of what is stated in the SWPPP (640'). This discrepancy should be rectified.
2. The decommissioning plan discusses a lot about materials and quantities and total costs but it does not truly describe the means and methods of removing the equipment from its installed location and how to deconstruct it. That is approximately half of the expectation of what this plan should be.
3. Applicant should note, the amount required to be insured to the Town of Glen must be Decommissioning Costs before consideration of Salvage Values.
4. The decommissioning plan should describe the method of ensuring that funds will be available for decommissioning and restoration of the Site and any off-site areas disturbed by or utilized during decommissioning. **
5. Decommissioning plan should describe the method by which the cost estimate can be made current. **

* - This comment is based on the Wind Energy Guidebook for Local Governments by NYSERDA.

** - This comment is based on the Town of Duanesburg Wind Energy Facility Law, as the Town of Glen does not currently have a local law for wind energy.

If you have any questions, please feel free to contact me.

Sincerely,

KB Group of NY, Inc. dba PRIME AE Group of NY



Douglas P. Cole, P.E.

Senior Director of Engineering

cc: Brandon Smith, Borrego Solar

