

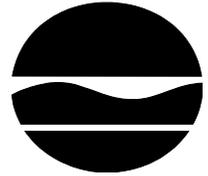
# New York State Department of Environmental Conservation

## Division of Environmental Permits, 4<sup>th</sup> Floor

625 Broadway, Albany, New York 12233-1750

Phone: (518) 402-9167 • FAX: (518) 402-9168

Website: [www.dec.state.ny.us](http://www.dec.state.ny.us)



Alexander B. Grannis  
Commissioner

January 7, 2008

Mr. Mark G. Gebo, Esq.  
Town Attorney  
Town of Martinsburg  
216 Washington Street  
Suite 300  
Watertown, New York 13601

**Re: State Environmental Quality Review (SEQR)  
Roaring Brook Wind Power Project  
Town of Martinsburg, Lewis County**

Dear Mr. Gebo:

The New York State Department of Environmental Conservation (DEC) has performed an initial review of the Full Environmental Assessment Form (EAF) for the project identified above. The EAF was provided to DEC with a letter from the Town of Martinsburg Planning Board, dated December 7, 2007, to request Lead Agency status pursuant to the State Environmental Quality Review Act (SEQR). The Planning Board has received an application for site plan approval of the project from Atlantic Wind, LLC. The project is described as a 78 megawatt (MW) wind energy facility consisting of up to 39 – 2.0 MW wind turbines, located on 26 parcels of leased private land held by a single landowner, totaling approximately 3,980 acres. Associated infrastructure includes an operations & maintenance (O&M) building, upgrading 11 miles of existing unpaved forest roads to create gravel access roads, construction of approximately 4 miles of new gravel access roads, installation of approximately 16 miles of buried electrical interconnection lines, one permanent, free-standing 100-meter tall meteorological (met) tower, and an approximate 10-mile long 34.5kV electrical interconnection line (4 miles of buried line and 6 miles of overhead line). The interconnection line right-of-way will occupy approximately 100 acres, making the study area a total of 4,080 acres.

**1) Lead Agency.** DEC does not object to the Town of Martinsburg Planning Board assuming the role of lead agency to conduct the SEQR review. However, DEC has substantial concerns for the potential impacts of certain aspects of this project and strongly urges the Planning Board to require the preparation of a Draft Environmental Impact Statement (DEIS). The comments provided in this letter support this recommendation and identify concerns DEC has with wind projects in general and the proposed project at this location in particular. DEC recommends that formal scoping be conducted to allow for ample participation by the public and involved and interested agencies in the preparation of the scope of the DEIS. DEC expects to provide further

comments during the scoping process. The DEIS should discuss the potential cumulative impacts from all existing wind energy projects and active proposals for wind power projects in the region. SEQR milestones such as determining DEIS completeness, scheduling public hearings, and establishing the deadline for comments are subject to preparation, filing, publication and distribution requirements of SEQR regulations at 6 NYCRR 617.12.<sup>1</sup>

**2) Department Jurisdiction.** DEC authorizations for construction of wind energy facilities typically include an Article 24 Freshwater Wetlands permit, Article 15 stream disturbance permit, and a Clean Water Act Section 401 Water Quality Certification. An initial screening of resources in the project area shows extensive areas of DEC-mapped wetlands (the SEQR Full EAF states that there currently exist 1,320 acres of freshwater wetlands in the project development area), and streams classified as C(t), protected under DEC regulations. A portion of the project development area is included in National Wetland Inventory maps, which show potential federal wetlands in the mapped area. In addition, if the project will have an impact on endangered and/or threatened species, the Department will have jurisdiction under Article 11 of the Environmental Conservation Law. That determination remains to be made and will first require consultation with the Department's Staff. However, the actual breadth of DEC's jurisdiction can not be determined definitively until the location of the turbines, access roads, electrical interconnection lines, construction laydown areas, etc., are fully described.

Approval is also required to discharge stormwater during the construction of the facility. This approval is administered as a general permit under the State Pollutant Discharge Elimination System (SPDES) program (SPDES General Permit for Stormwater Discharges from Construction Activities, GP-0-08-001).

**3) Project Description.** The DEIS should provide a complete description of the proposed project scope, including the proposed number and location of turbines, turbine type, size and rotor swept area, existing and proposed access roads, underground and overhead transmission line routes (including any new transmission lines required for connection to the grid), temporary and permanent meteorological (met) towers, temporary and permanent laydown/construction staging areas, project office, substation, and any other project development components that will potentially affect existing conditions in the project development area (e.g., wetland mitigation sites).

The project description should also include discussion of transportation routes for delivery of materials to the project development area, particularly where road improvements may be required that impact wetlands or streams. The source and quantity of gravel required for construction of temporary and permanent access roads, and the location and capacity requirements of any proposed concrete batch plants, should be described.

**Project Impacts.** Based on experience with existing and proposed wind farms, DEC recommends that the DEIS include detailed discussion of the following issues of primary concern to the agency.

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<sup>1</sup> 617: State Environmental Quality Review, Available: <http://www.dec.ny.gov/regs/4490.html#18098>

a) Bird and Bat Impacts.

DEC has been involved in consultation with the project sponsor to develop methodologies for ongoing pre-construction avian/bat studies being conducted in the project area. To date, DEC has received a *Phase I Avian Risk Assessment, 2007 Breeding Bird Survey* report, and *A Visual Study of Nocturnal Bird and Bat Migration, spring 2007* report. DEC encourages the project sponsor to set up a meeting with DEC in the near future to discuss the results of the current studies and develop recommendations for additional studies that may be warranted.

The DEIS should include results of a habitat and nest/roost site survey targeting any listed endangered, threatened or special concern fish and wildlife species that exist in the project development area, or may be affected by proposed project development activities. Measures to avoid adverse impacts to birds and bats should be described, including avoidance of construction in critical habitat areas, scheduling construction to avoid interruption of breeding and nesting activities, and re-location or elimination of specific project components (including but not limited to turbines, access roads, and transmission/distribution interconnect routes) if any of these are determined to result in an actual or potential adverse impacts.

Where impacts to birds, bats, or other endangered or threatened species cannot be avoided, mitigation measures may include an adaptive management strategy that identifies options to be considered during project operation if adverse impacts are identified by post-construction monitoring. These mitigation options might include, but are not limited to, removal or re-location of specific turbines, short-term shutdown for certain hours or days during peak migration or other identified high-risk periods, and feathering blades at slow wind speeds to reduce risk of bat mortality. Conservation easements, land purchases, and other habitat management techniques may also be appropriate mitigation options. Development of any mitigation plans should be done in consultation with DEC.

Plans for post-construction monitoring to collect data on the estimated collision mortality rate of birds and bats that pass through and use the project site during project operation should be described in the DEIS. A post-construction habitat avoidance/displacement study should also be developed to study the effects of the wind energy facility on nesting grassland birds. DEC will require a post-construction study and mitigation for any permits that may be required from the agency for construction of the project. DEC recommends that the project sponsor consult with the Department and the U.S. Fish and Wildlife Service in developing protocols for the post-construction monitoring plan.

To minimize a potential collision hazard, DEC recommends that all temporary and permanent meteorological (met) towers be free-standing towers without guy wires.

b) Natural Resource Impacts.

*Wetlands and streams.*

Wetland delineation reports for any areas that would be impacted by project construction, as outlined in the project description above, should be provided in the DEIS. In addition, the

DEIS should provide wetland delineation reports for wetland areas along public roads and intersections where improvements are necessary to deliver project materials (road widening, increasing turning radii, modifications to culverts).

The DEIS should discuss how the proposed project will avoid, minimize or reduce potential wetland impacts to the maximum extent. This discussion should include specifications for construction activities that limit impacts to surface waters, wetlands and underground waters, such as erosion and sediment controls, proper handling of concrete during construction of turbine pads, installation of controlled concrete washout areas, storage of fuel and chemicals outside of wetland adjacent areas, and spill prevention and response. It should also discuss alternative project designs that were examined to avoid and reduce impacts to wetlands (this is required before DEC considers mitigation as an option to compensate for unavoidable impacts). This discussion should assess whether there are overriding economic and social needs for the project that outweigh the environmental costs of impacts on the wetlands.

A clear distinction should be made between "temporary" and "permanent" wetland impacts. Simple re-grading to pre-construction contours following excavation in a wetland area may not be enough to restore the full function of the existing wetland area. Clear-cutting of forested wetland represents a permanent wetland impact, which must be factored into total wetland disturbance for which permits and mitigation are required.

If unavoidable wetland impacts are expected to result from project construction activities, the DEIS must include a discussion of compensatory mitigation being considered, including potential locations for mitigation sites. Proposed mitigation must conform to DEC wetland mitigation guidelines.<sup>2</sup> Included in this discussion should be the proposed legal mechanism to secure long term access and management of compensatory mitigation sites (e.g., ownership, permanent easement, or transfer to third-party conservancy organization). For DEC permits, the structure of this agreement must be in a form acceptable to the Department.

A detailed map of streams within the project development area and DEC classification should be included in the DEIS. Access roads, overhead and underground interconnects, or other project components that cross or are located in close proximity to any stream classified as C(t) or higher need to be included on this map. Determinations regarding the navigability of streams to be crossed or impacted pursuant to the definition of "Navigable Waters of the State" found in 6 NYCRR Part 608 (1) need to be included. If a "navigable" determination is made, an Article 15 Title 5 Permit for the "Excavation and Fill of Navigable Waters" may be required. Where access roads or interconnect lines are proposed to cross streams, specifications for culvert design and sizing, culvert installation techniques, tree clearing or other activities that affect the stream should be discussed.

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<sup>2</sup> New York State Department of Environmental Conservation. *Freshwater Wetlands Regulation Guidelines on Compensatory Mitigation*. ONLINE. 29 Oct. 1993. Available: [http://www.dec.ny.gov/docs/wildlife\\_pdf/wetlmit.pdf](http://www.dec.ny.gov/docs/wildlife_pdf/wetlmit.pdf) [15 Jun. 2007].

### *Significant or unique plant communities.*

A habitat survey to identify threatened or endangered plants and associated ecological communities located within the project area should be conducted and results included in the DEIS. Potential impacts to these resources that may result from construction of the project should be discussed, and if adverse impacts are identified, proposed mitigation options should be described.

### *Endangered, Threatened, or Special Concern Fish & Wildlife Species.*

The DEIS should include a habitat and nest/roost site survey for any state or federally listed endangered, threatened or special concern fish and wildlife species that exist in or may be affected by proposed activities. Information regarding which species may be in the area can be obtained from the Natural Heritage Program, DEC regional biologists, USFWS, and local non-profit organizations such as The Nature Conservancy and Audubon Society. The project sponsor should consult with DEC for further details on the design of these investigations. If the results of the recommended surveys indicate that potential impacts to a listed species may occur as a result of project activities, the DEIS should include potential mitigation measures to minimize these impacts.

### *Invasive Species.*

An Invasive Species Control Plan (ISCP) to minimize the spread of invasive propagules throughout the project development area, and particularly in regulated wetland and stream areas, should be included in the DEIS. The ISCP will be a requirement of any permits issued by DEC. The goal of the ISCP is an overall 0% net increase in the areal coverage of invasive species in the project development area. Post-construction monitoring and periodic management, including invasives control and re-planting of preferred indigenous species to ensure survival, is a necessary component of the ISCP to ensure the success of the plan.

### *Regional Conservation Issues.*

The project development area lies in a region rich in biological diversity and important water resources. The DEIS for this project needs to consider the potential adverse effects of the proposed development on these resources, and additionally, should explore long-term management of the project development area to complement and advance the goals of resource conservation and management programs in this region.

Tug Hill Wildlife Management Area. The Tug Hill Wildlife Management Area (WMA) is located on an adjacent state-owned parcel to the west of the project development area. The WMA is an important headwaters area of several watersheds on the Tug Hill Plateau. Protection of these water resources is of the utmost importance when conducting habitat management activities on the WMA. Northern hardwood forest stands occupy approximately 3,200 acres of the WMA and are actively being managed through commercial forest product sales. Managing and maintaining these hardwood stands in various stages of forest succession benefits a wide variety of both game and non-game wildlife species.

East Branch of Fish Creek Conservation Area. To the south of the project development area is the Nature Conservancy's East Branch of Fish Creek Conservation Area, a 4,430 acre tract of intact, undeveloped landscape that is a mosaic of spruce-fir and northern hardwood forests, numerous and extensive wetlands, and naturally flowing rivers and streams that harbor significant biological diversity and provide important and diverse habitat for wildlife plants and ecosystems. This property contains the headwaters of the East Branch of Fish Creek, which is the source of drinking water for the City of Rome, as well as the headwaters of the Mad River, both of which are considered by the New York Natural Heritage Program to be premier examples of headwater and midreach streams. The Tug Hill Tomorrow Land Trust has listed the Salmon River and the East Branch of Fish Creek as Priority Watersheds for protection. In 2006, DEC secured a conservation easement on the property for purposes of protecting conservation values of the property, encouraging long-term professional management of resources, and providing opportunities for public recreation consistent with conservation management of the parcel.

Tug Hill Important Bird Area. The entire project development area lies within an 80,000 acre area of the Tug Hill Plateau designated by the Nature Conservancy as an Important Bird Area (IBA).

Tug Hill Core Forest Area. The Tug Hill Core Forest Area has been delineated by the Tug Hill Commission and is currently being looked at by state agencies for official designation.

Tug Hill Core Forests and Headwater Streams. The Tug Hill Core Forests and Headwater Streams is a joint Priority Project for DEC Regions 6 & 7 listed in the 2006 Open Space Plan which states: "The integrity of these core forests and headwaters should be protected through a combination of easement and fee acquisition of key parcels. Of particular importance is the maintenance of large private tracts managed for forest products to prevent subdivision and development."

### ***Visual Impacts.***

DEC recommends that a visual analysis consistent with *Assessing and Mitigating Visual Impacts, DEP-00-2* ("DEC Visual Policy")<sup>3</sup>, be prepared and included in the DEIS. The visual analysis should identify which of the 15 resource categories listed in section V (A) of the DEC Visual Policy may be impacted by the project, and describe specific aesthetic resources of statewide significance within each category, and how they may be visually impacted by the project. DEC Visual Policy recommends that the assessment examine an area greater than 5 miles from the turbines if there are any potential sensitive receptors as described in section V (B). The visual analysis should include graphic representations that show the locations of identified sensitive visual receptors together with a viewshed analysis to clearly show which sensitive receptors will be affected by views of the project. This analysis should also include state and national register eligible (NRE) resources identified in the architectural survey prepared in accordance with the cultural resources investigation (see below).

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<sup>3</sup> New York State Department of Environmental Conservation. *Assessing and Mitigating Visual Impacts*. ONLINE. 31 Jul. 200. DEP-00-2. Available: [http://www.dec.ny.gov/docs/permits\\_ej\\_operations\\_pdf/visual2000.pdf](http://www.dec.ny.gov/docs/permits_ej_operations_pdf/visual2000.pdf)

The visual assessment should include an analysis of factors that may cause a diminishment of the public enjoyment and appreciation of specific affected aesthetic resources in the project development area visually impacted by the project. Analysis must include factors that define the resource as an aesthetic resource, the visual setting, and the magnitude of the visual impact on the resource.

Mitigation options described in Section D of the DEC Visual Policy, including Professional Design and Siting, Maintenance, and Offsets, should be fully evaluated in the visual assessment, including discussion of the feasibility of employing direct mitigation for visual impacts to specific impacted aesthetic resources (e.g., screening, elimination or re-location of one or more proposed turbines). Where a determination is made that direct mitigation of a specific aesthetic resource is not practicable, the rationale for this determination should be provided. Where it is determined that direct mitigation is not practicable, DEC visual policy recommends consideration of visual offsets. This process is most appropriately conducted in concert with the cultural resources review prepared in accordance with state or federal historic preservation review processes (see below).

### ***Cultural and Archeological Resources.***

If any state agency approvals or permits are needed for this project, compliance with the New York State Historic Preservation Act of 1980, Section 14.09, will be necessary. In addition, should federal agency approval or permitting be needed, compliance with Section 106 of the National Historic Preservation Act will be required. Review under state Section 14.09 is not required when the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) is acting in its role of State Historic Preservation Officer (SHPO), and reviewing a project under federal Section 106 (14.09 State Regulations, Section 428.2(a)). If state or federal agencies are not involved in this project, the lead agency should consider consultation with OPRHP in order to make decisions regarding potential impacts to significant historic and cultural resources.

The DEIS should identify the extent of state or federal agency involvement and discuss the status and results of any historic preservation studies undertaken. Consultation with OPRHP is recommended to discuss possible methodology for conducting cultural resource investigations. Consultation regarding eligibility of properties, probable impact determinations and possible mitigation measures should be done prior to preparation of the DEIS. The results of that consultation, with supporting documentation, should be presented in the DEIS. This process should be conducted in concert with the visual assessment prepared in accordance with the DEC visual policy (see above).

Adverse impacts identified through consultation with OPRHP are generally subject to resolution through a Memorandum of Agreement (MOA) that identifies applicable mitigation measures to offset the anticipated adverse impacts. The DEIS should therefore describe potential mitigation measures or methodologies to identify potential mitigation measures based on expected adverse impacts to cultural resources.

#### **4) Project Construction and Operation.**

##### ***Environmental monitor.***

The DEIS should include an environmental monitoring plan that provides for an independent monitor to oversee the various mitigation activities identified during the course of the environmental review. The monitor must possess a working knowledge of state and federal regulations, natural resources (wetlands, streams, state and federally listed species and their habitat requirements, and any other unique local natural features), and be familiar with construction activities. The monitor will observe and report as to adherence to all permits, permit conditions, construction design plans and specifications. He or she must also have authority to stop construction activities when non-compliance is observed and to require that corrective action be taken.

DEC recommends that all environmental protection provisions identified during the environmental review be incorporated into project construction performance specifications. These conditions should be included in agreements with contractors, making it clear that the contractors, employees, agents and assigns are responsible to comply with terms and conditions of environmental permits while acting as agents of the project sponsor with respect to permitted activities, and such persons are subject to the same sanctions for permit violations as prescribed for the project sponsor.

##### ***Environmental Restoration.***

A thorough discussion of environmental restoration activities to be conducted post-construction should be included in the DEIS. This discussion would include details of re-grading and stabilization of temporary impacts to wetlands and streams, including re-establishment of wetland hydrology (if disrupted); restoration of disturbed habitat, including re-planting suitable species in wetlands, adjacent areas and streams; wetland mitigation project construction; stabilization of disturbed areas subject to the SPDES Stormwater General Permit; removal and proper disposal of temporary road materials; and re-grading soil in agricultural and forested areas in accordance with NYS Department of Agriculture and Markets guidelines or other Best Management Practices.

##### ***Operations and maintenance.***

An Operations and Maintenance (O&M) Plan should be developed and included in the DEIS. The O&M Plan should describe environmental considerations to be included in the ongoing maintenance of the facility, a contingency plan to assess and minimize environmental impacts during major repairs, and assessment and mitigation of environmental impacts during the decommissioning process. Specific considerations to be included, at a minimum:

1. Wetland mitigation project maintenance.
2. On-going monitoring and management to ensure that restoration activities are successful and maintenance activities avoid future wetland impacts, i.e., limits on tree clearing in sensitive wetland areas.

3. Invasive species control.
4. General maintenance and repair of roads.
5. Right-of-Way management of overhead and underground electrical interconnects.
6. Contingency plans for access to project components that require major repair (major turbine service, overhead line loss).
7. Spill response plan for incidences involving release of hazardous chemicals.
8. An adaptive management component to respond to environmental impacts that arise during project operation (such as potential impacts to birds and bats).
9. Opportunities for creation of additional environmental enhancements beyond those required for restoration and mitigation, through cooperative partnerships with landowners, state or local agencies, educational and conservation organizations.

DEC appreciates the opportunity to comment on the project at this early stage and looks forward to working with the Town of Martinsburg throughout the remainder of the SEQR and permit review process. If you have any questions, you may contact Mr. Stephen Tomasik, Project Manager, by phone at (518) 486-9955, or by email at [smtomasi@gw.dec.state.ny.us](mailto:smtomasi@gw.dec.state.ny.us).

Sincerely,

/s/

Jack A. Nasca  
Chief, Energy Projects and Management  
Division of Environmental Permits

cc: J. Burke, Atlantic Wind, LLC  
T. Thisse, Town of Martinsburg Supervisor  
N. Cole, Lewis County IDA  
A. Davis, NYS DPS  
M. Brower, Ag. & Mkts.  
J. Bonafide, OPRHP  
M. Crawford, USACE  
T. Sullivan, USFWS  
J. Drabicki, DEC Region 6  
L. Ambeau, DEC Region 6  
DEC Review Team