

FINAL WRITTEN SCOPE

Draft Generic Environmental Impact Statement

Ecogen, LLC Prattsburgh/Italy Wind Farm

**Town of Prattsburgh
Steuben County, New York
and
Town of Italy
Yates County, New York**

**Lead Agency:
Steuben County Industrial Development Agency**

**Project Sponsor:
Ecogen, LLC**

June 10, 2004

**Final Written Scope
Draft Generic Environmental Impact Statement
Ecogen, LLC Prattsburgh/Italy Wind Farm**

TABLE OF CONTENTS (This Document)

<u>Section</u>	<u>Page No.</u>
EXECUTIVE SUMMARY	E-1
1.0 INTRODUCTION	1-1
1.1 Project Description	1-1
1.2 Proposed Action.....	1-1
1.3 Purpose of Scoping and SEQR Process	1-1
2.0 CONTENT OF DGEIS	2-1
2.1 DGEIS Chapter 1: Introduction / Project Description	2-1
2.2 DGEIS Chapter 2: General Environmental Setting	2-2
2.3 DGEIS Chapter 3: Assessment of Impacts	2-2
2.3.1 Format (for each impact category).....	2-2
2.3.1.1 Impact on Land and Land Use.....	2-3
2.3.1.2 Impact on Water	2-4
2.3.1.3 Impacts on Wildlife and Habitat.....	2-6
2.3.1.4 Impact on Agricultural Resources	2-11
2.3.1.5 Aesthetic Resources / Visual Impacts and Community Character.....	2-13
2.3.1.6 Historic and Archaeological Resources	2-15
2.3.1.7 Noise Impacts	2-17
2.3.1.8 Energy Impacts	2-19
2.3.1.9 Solid Waste.....	2-19
2.3.1.10 Temporary and Short-Term Impacts.....	2-20
2.4 DGEIS Chapter 4: Alternatives	2-20
2.5 DGEIS Chapter 5: Unavoidable Adverse Environmental Impacts	2-20
2.6 DGEIS Chapter 6: Irreversible and Irretrievable Commitment of Resources	2-21
2.7 DGEIS Chapter 7: Cumulative and Indirect Impacts	2-21
2.8 DGEIS Chapter 8: Growth Inducing Aspects of Action.....	2-21

TABLE OF CONTENTS (continued)

<u>Section</u>		<u>Page No.</u>
2.9	DGEIS Chapter 9: Environmental Justice	2-21
3.0	NEW ISSUES RESULTING FROM SCOPING	3-1
3.1	Health and Safety Impacts	3-2
3.2	Blasting and Seismic Geological Issues	3-2
3.3	Socio-Economic Impacts	3-2
3.4	Property Values.....	3-3
3.5	Groundwater and Wells	3-3
3.6	Decommissioning	3-3
3.7	Mandated FAA Lighting.....	3-4
3.8	Obstruction of FCC Regulated Signals.....	3-4
3.9	Land Title.....	3-4
4.0	GLOSSARY AND ABBREVIATIONS	4-1
5.0	APPENDICES TO DGEIS.....	5-1

EXECUTIVE SUMMARY

Proposed Project

Ecogen, LLC proposes to construct $53 \pm$ wind turbine units for the purpose of generating 79.5 megawatts, or less, of electricity in the Town of Prattsburgh, Steuben County and the Town of Italy, Yates County, New York. An overall study area of approximately 33,000 acres was identified within which the individual sites for the turbine units will be selected. See Figure 1.

Proposed Action

For the purposes of SEQR, the proposed action will be considered to include approval and funding assistance for development of $53 \pm$ individual wind turbine generators, electrical collection system (below grade and limited overhead), a substation for the connection to the New York State Electric & Gas Corporation's (NYSEG) existing 115 kV power grid, and service roads within the project area.

SEQR Context

The Steuben County Industrial Development Agency, in its capacity of Lead Agency determined that the project results in one or more potentially large impacts. The SCIDA issued a Positive Declaration, requiring preparation of an Environmental Impact Statement in accordance with 6 NYCRR Part 617 – State Environmental Quality Review (SEQR). A Generic Environmental Impact Statement was selected as an appropriate means to assess potential impacts for the project. At this time the precise locations of the wind turbine sites are not known. An advantage of preparing a GEIS is that it will provide the project sponsor with a set of siting criteria within which to assist in making final siting decisions.

This Final Written Scope is the result of a public scoping effort which included a draft public scoping document, a public scoping session and numerous contacts and meetings with involved agencies. The public was afforded the opportunity to provide the Lead Agency both oral and written comments on the proposed scope of the GEIS.

The SEQR process will proceed with the following general steps:

- Preparation of the Draft GEIS by the project sponsor
- Review of the Draft GEIS by the Lead Agency for completeness and adequacy for public/agency review
- Public comment period
- Public hearing on the DGEIS
- Preparation of a Final GEIS
- Preparation and adoption of a Findings Statement by the Lead Agency

Draft Generic Environmental Impact Statement Content

This scoping document describes how the Draft GEIS will be prepared. It outlines the anticipated minimum content and format as required in SEQR Part 617.9. A general description of the study approach anticipated for the most significant impacts is provided. This scoping document provides a general outline of the Draft GEIS summarized below:

Preliminary Table of Contents of Draft GEIS

	Cover Page
I.	Table Of Contents
II.	Executive Summary
III.	Chapter 1. Introduction / Project Description
IV.	Chapter 2. General Environmental Setting
V.	Chapter 3. Assessment of Impacts
	• Impact on Land and Land Use
	• Impact on Water
	○ Surface Waters
	○ Wetlands
	○ Groundwater
	• Impacts on Wildlife and Habitat
	○ Rare, Threatened and Endangered Species
	○ Flora and Fauna
	○ Avian
	○ Bats
	• Impact on Agricultural Resources
	• Impact on Aesthetic Resources, Visual Impacts and Community Character
	• Impact on Historic and Archeological Resources
	• Noise Impacts
	• Energy Impacts
	• Solid Waste Impacts
	• Socio-Economic Impacts
	• Health & Safety Impacts
	• Impacts to Local Roads
	• Blasting and Geological Issues
	• Property Values
	• Groundwater and Wells
	• Decommissioning
	• Mandated FAA Lighting
	• Obstruction of FCC Regulated Signals
	• Land Title
	Chapter 4. Alternatives
	• Scale and Magnitude
	• Project Location and Consolidation
	• Variations in Tower site Design
	• Alternative Uses / Technologies
	• Project Changes Resulting form Changes in Local Laws
	• Construction Phasing
	• No Action Alternative
	Chapter 5. Unavoidable Adverse Environmental Impacts
	Chapter 6. Irreversible and Irretrievable Commitment of Resources
	Chapter 7. Cumulative and Indirect Impacts

Chapter 8. Growth Inducing Aspects of Action

Chapter 9. Environmental Justice

Additional Issues Resulting from Scoping

Approximately fourteen issues and potential impacts raised through public scoping have been added to the list of impacts to be addressed in the Draft GEIS.

- Health and Safety Impacts
 - Ice Throw and Ice Shedding
 - Tower Collapse, Fall Zones and Blade Throw
 - Lightning Strikes
 - Electromagnetic Fields
 - Human Medical and Psychological Effects
- Blasting and Seismic Conditions
- Socio-Economic Impacts
- Property Values
- Groundwater and Wells
- Decommissioning
- FAA Mandated Lighting
- FCC Regulated Signals
- Land Title
- Impact to Roads

The Draft GEIS will be supported by several content specific studies and assessment reports. It is anticipated that the following reports will be appended to the Draft GEIS:

- SEQR related Agency Correspondence
- Cultural Resources Assessment
- Wetlands and Habitat Study
- Avian Study and Data Analysis Report
- Bat Survey Report
- Avian Risk Assessment
- Bat Risk Assessment
- Agricultural Mitigation Plan
 - Preliminary Notice of Intent and Agricultural Protection Measures
 - Final Notice of Intent – Agricultural Impact Statement
- Visual Impact Assessment
- Noise Impact Assessment
- Construction Transportation Assessment

1.0 INTRODUCTION

1.1 Project Description

The proposed project by Ecogen LLC consists of the construction of 53± wind turbine units for the purpose of generating 79.5 megawatts, or less, of electricity.

1.2 Proposed Action

For the purposes of SEQR, the proposed action will be considered to include approval and funding for development of 53± individual wind turbine generators, electrical collection system (below grade and limited overhead), a substation for the connection to the New York State Electric & Gas Corporation's (NYSEG) existing 115 kV power grid, and service roads within the project area. The potential siting of these facilities will be addressed in a "worst-case" scenario approach in order to ensure a thorough evaluation of the potential impacts. An evaluation of the significant environmental impacts of the proposed action potential mitigation measures and the alternatives will be provided in the GEIS.

1.3 Purpose of Scoping and SEQR Process

The Steuben County Industrial Development Agency (SCIDA) received an application for funding assistance from Ecogen, LLC and subsequently solicited for lead agency status. The SCIDA identified the project as a Type 1 Action for the purposes of SEQR under 6 NYCRR Part 617 – State Environmental Quality Review. The SCIDA, in its role as Lead Agency, coordinated the review with other involved agencies and interested parties. The SCIDA reviewed the potential environmental impacts of the Action against the criteria listed in Part 617.7 and determined that the Action may have a significant effect on the environment and that a Draft Generic Environmental Impact Statement (DGEIS) must be prepared.

An Environmental Assessment Form (EAF) - Parts 1 and 2 were prepared in order to describe the project and to identify potential environmental impacts. Those impacts identified as being potentially large were further evaluated in the EAF Part 3. Potentially large impacts that require further evaluation in the DGEIS are presented in the Notice of Determination of Significance – Positive Declaration, adopted by the SCIDA, in their role as Lead Agency on March 25, 2004 in a regular meeting of the Board. SCIDA subsequently determined that the project would be subject to public scoping.

A Generic Environmental Impact Statement was selected as an appropriate means to assess potential impacts for the project for several reasons. See attached letter from Mr. Rudyard G. Edick, NYSDEC dated April 29, 2004. The project meets the criteria for a generic approach in accordance with Part 617.10(a)(1) because the project consists of "a number of separate actions in a given geographic area which, if considered singly, may have minor impacts, but if considered together may have significant impacts".

At this time the precise locations of the wind turbine sites are not known. An advantage of preparing a GEIS is that it will provide a set of detailed siting criteria to assist in making final siting decisions. The generic aspect of a GEIS allows consideration of broad-based actions or related groups of actions that agencies are likely to approve, fund, or undertake. The GEIS also allows for an accounting of the cumulative impacts and secondary impacts of various potential alternative sites and combinations thereof.

The Generic Environmental Impact Statement process concludes with a set of conditions or criteria under which future actions will be undertaken. These conditions and thresholds will be presented in the Findings Statement. The criteria established in the Findings Statement will be applied to the project through the issuance of permits and approvals by state and local agencies. If those preset thresholds or criteria are not met, additional evaluation under Part 617.10(d) may be warranted. The DGEIS, FGEIS and Findings Statement will outline the thresholds under what circumstances Supplemental GEIS or other additional SEQR evaluation will be required.

A site plan review process will be developed in the GEIS and included in the Findings Statement. It is anticipated that the Findings Statement will include or refer to a checklist of final design standards to be allied to the development of the individual turbine sites. The Findings Statement will also require that individual Site Plans be developed for each turbine site. An approval tracking form or other style of document will be developed to accompany each site plan.

A process and check list will be developed in order to confirm consistency with conditions and thresholds with the SEQR process. If the conditions or thresholds established through the Findings Statement (including siting criteria) are exceeded, then a supplemental EIS may be required. If any threshold in Part 617.10(d) is reached, the Town may also request that the Lead Agency evaluate the appropriate course of action.

According to Part 617.2(af), Scoping is the process by which the Lead Agency identifies potentially significant adverse impacts that should be considered in a draft EIS. As part of the EIS process and in accordance with SEQR §617.8, a Draft Scoping Document was prepared and submitted to the Lead Agency. A public scoping session was held on April 22, 2004 at 7:00 p.m. at the Prattsburgh Central School, 1 Academy Street, Town of Prattsburgh, New York. The scoping session was conducted to solicit public input for the preparation of this document and to ensure that the DGEIS will include relevant public concerns and will be appropriate in its scope and content. Written comments on the Draft Scope were accepted by the Lead Agency until Thursday, May 6, 2004 at 5:00 pm. Additional written comments were received after May 6, 2004 if so requested by the preparer. On May 13, 2004 representatives from the Lead Agency and project sponsor met with the New York State Department of Environmental Conservation regarding general scoping comments and study methodologies for specific environmental issues related to the project area. On May 17, 2004, the Lead Agency met in order to determine the content of the Final Written Scope and to outline procedures for completing the GEIS and Findings Statement.

As a result of input from Involved Agencies, interested parties and the general public, this document presents the Final Written Scope for the preparation of the DGEIS in accordance with SEQR §617.9 and SEQR §617.10.

2.0 CONTENT OF DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT

The Draft Generic Environmental Impact Statement will be prepared to meet the content and format requirements outlined in SEQR§617.9. A general description of content or approach anticipated for each chapter is presented below.

2.1 DGEIS Chapter 1: Introduction/Project Description

Following the cover sheet, table of contents and executive summary, Chapter 1 will include discussions on the proposed action, project purpose, public need and benefit and a summary of the SEQR process in context of this project.

A comprehensive project description will be included in this section of the DGEIS. The project area is located within two towns (Italy in Yates County and Prattsburgh in Steuben County) and is generally bounded by Twelve Mile Creek Road to the west, McMichael Road to the east, Shay and Sliter Roads to the North and West Creek Road to the south. The project area is generally bisected by NYS Route 53. A project location map identifying initial target areas having adequate conditions for wind energy generation will supplement the project description. Within those target areas, approximately 100 initial sites showing potential for wind turbine generator installation will be identified. These initial target areas and turbine sites have been identified for initial review at this time and will be better defined as the project develops. The intent for the environmental review is to develop criteria to be used in selecting approximately 53 viable sites based on sound siting criterion that takes into consideration environmental and land use constraints. The criteria should balance project goals with the objective of reducing impact. See Figure 1.

Typical wind turbine sites will be 0.8 acres. The majority of each 0.8-acre site will only be utilized during construction. The finished site will have a pad of approximately 40 feet X 120 feet depending on detailed geotechnical evaluation of each site. The typical tower pad is approximately 15 feet in diameter. The towers are approximately 80 meters (262 feet) in height. Each tower will have three rotor blades. The net diameter of the rotors and hub will be 70.5 meters (231 feet) or 77 meters (253 feet). Where necessary, sixteen-foot wide gravel access roads will be constructed.

The project description section of the Draft GEIS will also include the following:

- Operation and maintenance of the facility
- Specific types of equipment proposed and their specifications
- Foundation Specifications
- Methods of construction
- NYS policies and goals regarding wind energy
- Description of wind energy market
- Description of existing power grid in the region and its current capacity, as well as regulations governing its expansion
- Description of site plan review process
- Schedule of construction
- General description of typical PILOT agreements
- Security measures
- Liability of sponsor

This section will also provide a discussion of the following: Purpose, Benefits, Needs and Objectives.

2.2 DGEIS Chapter 2: General Environmental Setting

This section of the DGEIS will present the general environmental setting, addressing existing conditions and providing baseline information from which the proposal can be evaluated.

- This section will describe the current status of land use regulations in the Towns. It will acknowledge that the Town of Italy is currently preparing a master plan with the intent to create zoning for the community.
- This section will discuss the implications of either Town adopting comprehensive plans and/or new land use controls that could affect the project, as well as the project's influence on the planning process.
- This section will discuss the implications on the project from the proposed Local Law A: "Town of Italy Wind Turbine Tower, Relay Station and Support Facility Moratorium Law 2004".
- This section of the DGEIS will characterize topographic and geologic features and landforms. This will be done for both the Finger Lakes regional setting as well as the local project setting.
- This section of the DGEIS describes the general land use in the project area.
- This section will describe short and long range plans at the County's and their implication (if any) to the project.
- This section will describe short and long range plans at adjacent Townships and their implications (if any) to the project.
- Also refer to 3.3 Socio-Economic Impacts

2.3 DGEIS Chapter 3: Assessment of Impacts

2.3.1 Format

For each type of impact identified through scoping, the DGEIS will present the following:

- A characterization of existing conditions or situations placing the potential impact in context with the geographic project area and the proposed wind farm project.

- An assessment of each impact with regard to its likelihood of occurring and its severity will use project specific information, existing research, special studies, and current regulations and public policy.
- A determination will be made for each impact relative to the anticipated level of significance, and where appropriate, mitigation measures to reduce impacts will be proposed. Mitigation costs and practicability will be weighed in the balancing required by the State Environmental Quality Review Act. Where applicable, both short-term and long-term impacts will be evaluated for each potential impact.

A key element of the Final Written Scope is the methodology or approach taken to evaluate the potential impacts. The following methodologies are presented for each impact area anticipated to be included in the DGEIS.

2.3.1.1 Impact on Land and Land Use

A. Characterization of Existing Conditions:

- The DGEIS will include descriptions of existing land forms and land uses in the overall project area.
- Land use will be characterized by utilizing existing available GIS data, aerial photography, and field observations and portrayed in the Draft GEIS using figures.

B. Assessment of Impact:

- This section will assess the project's potential impacts on land forms as discussed in the general setting, including steep slopes and hillside development.
- Changes in land use will be quantified for the parcels purchased or leased and also for the areas developed for the project. In general, if the project sponsor is proposing an entire parcel for lease, only a minimal area (approximately 0.8 acres) would be disturbed for development of each wind turbine site.
- This section will assess the potential impact on existing land use patterns, including impacts on future residential development and recreational opportunity.
- Changes in land use will reflect the areas proposed to be utilized for wind turbine generator sites and the collection system.
- The implications of the project on municipalities due to the lack of comprehensive planning and zoning will be discussed.

C. Determination and Proposed Mitigation:

- A determination will be made in the DGEIS regarding the level of impact to land forms and land use patterns.
- At this time, it is not anticipated that impacts will rise to a level that requires mitigation for land use impacts.

2.3.1.2 Impact on Water

A. Characterization of Existing Conditions:

- This section of the DGEIS will include a description of streams and other surface waters within the project area. State protected streams within the project area will be identified.
- The DGEIS will include a characterization of known groundwater resources based upon existing studies and mapped information. Available groundwater information will be mapped including depth to water table, direction of groundwater flow and identified well locations.
- Resources will be mapped and included as figures.

B. Assessment of Impact:

(1) Surface Waters:

- An analysis of potential impacts on streams and surface waters from project construction and project operation will be conducted. Impacts on water quality will be assessed. The DGEIS will discuss how the project avoids degradation of water quality and will meet Article 15 (Protected Streams) permit requirements for stream crossings related to access road and collection system construction which involve disturbances to stream bed or banks.
- The DGEIS will discuss how the project will meet the conditions of regulatory agencies storm water permits, including:
 - Storm water permit for construction activities (disturbances will exceed one acre).
 - A storm water pollution prevention plan in accordance with the State Pollutant Discharge Elimination System (SPDES) General Permit 02-01 for construction activities, NYSDEC Technical Guidance “Standards and Specifications for Erosion and Sediment Control”, and NYSDEC Technical Guidance “Stormwater Management Design Manual”
 - Other permits required by General Permit 02-01
 - A General Permit for the operational phase of the project.

(2) Wetlands

- State and USFWS National Wetland Inventory mapped wetland areas will be identified and shown on exhibits. Soils maps of the project area obtained from county soil surveys will show the location of hydric soils and soils with the potential for hydric inclusions. These are the most likely areas where federal wetlands may exist. Although the siting of wind turbines, associated access roads and subsurface utility lines will attempt to avoid wetlands, some minor impacts to wetlands are anticipated and will be quantified to the extent possible in this generic format using initial tower locations.
- When the proposed locations of turbines, access roads and utility lines have been identified, a professional wetland scientist from URS will field verify these areas for wetlands. This information will then be used to refine the locations of turbines and collection system so as to avoid wetland areas to the greatest extent practicable. The Federal methodology used to delineate wetlands will be described.
- Site planning considerations related to wetlands will be discussed in the DGEIS. The DGEIS will also discuss what measures were taken to avoid or minimize wetland impacts.
- Permitting requirements for any wetland activities will be discussed in the DGEIS. Impacts to wetlands are expected to be minimal and temporary. Most impacts will involve the crossing of wetlands by access roads and utility lines. Following construction, these wetland areas will be restored to their original contours as required under permit conditions. The U.S. Army Corps of Engineers' Nationwide Permit Program provides thresholds and conditions for minor wetland impacts.

(3) Groundwater

- Potential impacts to groundwater flow and groundwater quality will be evaluated. The evaluation will be based on the construction of turbine tower pads and foundations, access roads and collection systems.
- Potential impacts to groundwater quality will be considered for short-term construction activities and for long-term location of the towers.
- Criteria will be established to identify and assess potential threats to private water supplies.
- Refer to 3.5 Groundwater and Wells for additional scope.

C. Determination and Proposed Mitigation:

- Suitable mitigation measures proposed for potentially significant impacts to surface waters will be proposed in the DGEIS.
- Standards for a storm water management plan for construction and operational phases of the project will be included in the Draft GEIS that proposes suitable measures to mitigate adverse impacts resulting from changes in drainage patterns due to the project. A description of how the plan will be reviewed prior to construction will be developed.
- The DGEIS will discuss how proposed sediment and erosion controls will be developed and maintained during and following construction. Standard siltation and erosion control measures will be identified. Where applicable, mitigation may include date restrictions for construction activities involving disturbance of stream beds or banks.
- Criteria will be established to determine the potential threat to groundwater supplies related to final turbine location. A description of how the criteria will be reviewed prior to construction and post construction will be developed.
- Wetland avoidance will be considered when establishing siting criteria for the towers, access roads and collection system.
- Mitigation measures for impacts to wetlands exceeding permit thresholds will be evaluated for potential implementation during project development.

2.3.1.3 Impacts on Wildlife and Habitat

Impacts on wildlife and habitat in the project area will be addressed in this section of the Draft GEIS. Impacts to habitat would result from construction of individual turbine units, access roads and collection systems. Impacts to wildlife may occur during operation of the wind farm. Temporary and short-term impacts may result from construction activities and initial operation. Potential impacts to any State or Federal listed rare, threatened, or endangered plant or animal species will be discussed in the DGEIS. At this time, the primary concern is potential mortality to avian and bat species from collisions with turbines.

The New York Natural Heritage Program, NYS Department of Environmental Conservation - Division of Fish, Wildlife and Marine Resources, is considered the resource agency for this work. Specialized studies to be completed by the project sponsor will be accomplished in coordination with resource agencies. In particular:

- Surveys for endangered and threatened species will be done in consultation with NY National Heritage Program and NYSDEC Endangered Species Unit.
- Bat studies and field data collection will be designed and accomplished in consultation with NYSDEC staff. Alan Hicks is the contact person for coordination purposes.

- Avian bird studies (study methodologies, survey methods etc.) will be designed and accomplished in consultation with NYSDEC staff. Mark Woythal is the contact person for coordination purposes.
- High Tor Assessments will be accomplished in consultation with Bruce Penrod, NYSDEC High Tor Manager.

A. Characterization of Existing Conditions:

The draft GEIS will include a compilation of existing bodies of research relevant to the project area relating to ecological communities, breeding birds, bird census, endangered species, threatened species and migratory patterns. Critical environmental areas and Audubon designated important bird areas will be identified and characterized. In addition, detailed field studies will be conducted to characterize existing site conditions. A report summarizing those studies will be appended to the DGEIS with a synopsis incorporated into the DGEIS text.

(1) Rare, Threatened and Endangered Species

- Reports of short-eared owls and golden eagles (NYS endangered species) and timber rattlesnakes, northern harrier, bald eagles, and sedge wrens (NYS threatened species) have been reported in the area. While this is not intended to be a comprehensive list of endangered and threatened species which may be in the area, surveys for these species will be conducted for NYS endangered, threatened, and special concern species and the potential impact (to include habitat fragmentation) of this project on these species will be carefully addressed. This work shall be done in consultation with the New York Natural Heritage Program and the NYSDEC Endangered Species unit.
- The DGEIS will include an assessment of impacts to rare, threatened and endangered species likely to exist in the project area. Rare, threatened and endangered species potentially located in the project area will be identified in consultation with the USFWS, the New York Natural Heritage Program and the NYSDEC Endangered Species Unit. Field surveys of any rare, threatened and endangered species will be recorded. Habitats will be evaluated for the potential presence of rare, threatened and endangered species.

(2) Flora and Fauna

- The DGEIS will contain a description of the flora and fauna in the project area. A professional biologist will conduct fauna and flora surveys during the 2004 growing season. Typical habitats and plant communities will be characterized including the identification of dominant plant species in each plant community. Based on habitats observed and an evaluation of geographic distribution maps, a list will be compiled of all mammal, reptile, and amphibian species likely to be present on the site based on habitat requirements and known geographical distribution. This information will be augmented by direct observations and indirect observations (tracks and scat) made during all field visits.

(3) Avian

- The potential for avian impacts from the proposed project is likely to be influenced by bird migration densities in the area of the turbine blade sweep. Factors influencing the magnitude of potential blade strikes to migrating birds include: 1) the presence of a migration corridor resulting from geographic and landscape features; 2) wind speed and direction relative to the migration route; 3) weather condition including cloud cover, fog, rain pressure fronts, etc; and 4) migratory behaviors of the bird species present in the project vicinity. Resident bird species may be impacted depending on the habitat types present in the project area that are important for breeding and foraging for food.
- Pre-construction studies of avian use for the project area and potential project impacts to birds will be conducted. Both spatial and temporal distributions of the birds at risk will be evaluated. For assessing potential impacts to migratory birds, two years of a combination of studies using remote sensing, which may include radar and acoustic technologies, will be developed and conducted in consultation with the NYSDEC. This would include one year of pre-construction studies followed by one year of studies during construction given that the first year's data is satisfactory and complete. The recommendation that surveys be conducted over a two year period is an attempt to sample during various weather conditions and migration patterns. Weather information (e.g., fog, rain, cloud cover, etc.) should be collected during the sample events.
- The DGEIS will contain information on resident (breeding) and migratory birds in the project area. A list of birds that have been recorded as breeding in the project area for the years 2000 to 2004 are listed in the New York State Breeding Bird Atlas (BBA). Direct observations (visual and auditory) of birds utilizing the project area will be made during all field visits during spring, summer and fall. Data will be collected on diurnal and nocturnal migrants flying over the project area during spring and fall migrations. Decades of observation in New York State indicate that bird migration through the Finger Lakes region is strong and occurs along a broad front. Daytime observations of migrating raptors, water birds and songbirds will be made and would provide ground truthing . Observations will be made during expected peak flights based on time of year and weather projections (favorable wind direction).
- Information on nocturnal songbird migration will be obtained from previous migration studies, local and regional bird banding stations and avian experts familiar with the project area. An acoustic study of songbirds migrating over the project area will be conducted by qualified individuals targeting the 2004 and 2005 spring and fall migration seasons. The majority of migrating songbirds emit call notes, many of which can be identified to species or species groups such as sparrows, warblers and thrushes. The acoustic study will provide information on bird densities and altitude of migrating songbirds

up to about 1,500 feet. Previous studies have shown that the mean density of migrating birds is greatest around 1,500 feet. Since the acoustic monitoring may not detect birds above 1,500 feet, the study will use additional methods to collect data on bird migration at elevations above 1,500 feet. Weather information will also be collected and analyzed as part of the study. The study methodology will be developed in coordination with Mr. Mark Woythal, the NYSDEC staff assigned to this subject.

The results of the study will be augmented by historical data compiled at existing acoustic monitoring stations at Alfred, NY, about 25 miles southwest of the project, Watkins Glen, about 25 miles southeast of the project, and Bristol Mountain, about 10 miles northwest of the project. Historical and current data from all three stations will provide pertinent density and altitude baseline data to compare with the results of the proposed study. Efforts will be focused on the fall migration seasons because rising land elevations south of Lake Ontario may influence southward bound migratory flight paths and altitudes, and because historically, the majority of tower kills in central New York State have occurred during fall migration. The use of historical data will provide valuable baseline data for the study and will help compensate for annual weather variations that can greatly affect single-season data sets. The study approach will be further refined in direct consultation with the NYSDEC.

Details of the survey methods that are proposed will be provided to the DEC for review. Studies completed during the first year will be thoroughly reviewed by DEC staff to determine if adequate information was collected to make a recommendation to the lead agency regarding completeness for inclusion in the final GEIS. With acceptance by DEC staff and possible issuance of project approvals by the lead agency, the second year of study may be completed during the actual period of project construction. If DEC staff is not satisfied that the first year of data collection adequately addresses the full potential impact to migratory birds, SCIDA will require a second year of study.

With the recognition that the applicant may wish to take alternate approaches to the study, the applicant will be required to develop the approach in direct consultation with the NYSDEC. The applicant will request a letter of acknowledgement of the methodology from the NYSDEC to be submitted to the Lead Agency.

(4) Bats

- Regarding the nature of bat studies, a combination of mist netting and vocalization monitoring to identify resident animal is required. While it is true that canopy and above canopy feeders are under represented in netting surveys, the use of acoustical bat detectors in combination with mist netting should suffice in determining which species are present. Because of the elevation and distance from known hibernacula, sampling intensity will not need to be as great as if the survey was closer to the Indiana bat hibernacula.

The purpose of the study should be to determine what is passing over their site, what numbers, and the likelihood of these animals being struck by the turbines. A concern is the cumulative impact of this project and the Global Winds project on migrants. The study methodology will be developed in direct consultation with Mr. Alan Hicks, the NYSDEC staff member assigned to this subject.

- A preliminary assessment of the study parameters is as follows. The sampling sites will be selected based on locations of wind turbine groupings and on habitat and topographical features where aggregations of insects are likely to occur. It is anticipated that two evenings of surveying will be conducted at each location. Bat surveys will be conducted in early and late summer. The surveys will provide information on what bat species utilize the project area and levels of activity. The majority of bats killed at wind farm sites have been migratory tree bats including hoary, eastern red and silver-haired bats.

The late summer survey has been chosen to provide information on migratory tree bats in the project area. The Indiana bat is a Federally listed endangered species. Two Indiana bat hibernacula are located approximately 70 miles from the project; one to the northeast near Syracuse and the other to the southwest near Warren, Pennsylvania. As part of the general habitat assessment, the project area will be evaluated for suitable Indiana bat habitat that would include permanent water, forest cover over 15 percent and potential roost trees greater than 11 inches in diameter with greater than 10 percent loose bark (elm, hickory, oak, cottonwood, silver maple). The bat surveys will provide some information on the presence or absence of this species in the project area. The early summer survey will be useful for obtaining information on potential Indiana bat occurrence in the project area. The study approach will be further refined in direct consultation with the NYSDEC.

(5) High Tor Wildlife Management Area

- High Tor Wildlife Management Area consists of approximately 6,100 acres in Ontario and Yates Counties and is an important habitat for a number of state listed species. This area was also designated by Governor Pataki as a State Bird Conservation Area on March 12, 2002 to provide additional protection for critical bird habitats and expand opportunities for bird watching. The DGEIS will address the impact on this important areas and resident species.

B. Assessment of Impacts to Wildlife:

- Post-construction studies will be conducted at the project site during turbine operation. Bird and bat mortality monitoring should occur for at least the first two years and then again at year five of project operation. Details of the post construction program will be provided in the draft GEIS.

Based on information obtained during the avian studies, the potential impacts of the proposed project on resident breeding birds and migrating birds will be evaluated. Information on post-construction bird usage and wind turbine collisions provided in studies of existing wind farms will be evaluated. Particular attention will be paid to wind farms in the northeastern U.S. and New York State in particular. Existing wind farms are located in Wyoming County approximately 50 miles to the west and in Madison County approximately 75 miles to the northeast.

- The DGEIS will discuss the potential impacts of the proposed project on resident bat populations, bats migrating over the project area and the Indiana bat. The NYSDEC bat specialist will be consulted regarding the potential concern for Indiana bats in the project area.

C. Determination and Proposed Mitigation:

- The DGEIS will discuss mitigation measures for impacts associated with the project that are identified as potentially significant and adverse. Impacts to habitat will be minimized by use of best management practices during construction and limiting clearing of development sites to the minimum area required for construction.
- Wind turbines proposed for the project will incorporate features designed to reduce the potential for avian collisions such as special lighting and the lack of guy wires and lattice support structures.
- Based on a literature review and a preliminary assessment of habitats in the project area, resident bat populations would be expected to be far lower than populations in the southern U.S. where high bat mortalities have occurred.

2.3.1.4 Impact on Agricultural Resources

According to scoping comments received from the New York State Department of Agriculture and Markets impacts to agricultural lands can be characterized in one of two ways: Permanent loss of productive lands and damage to soil resources from construction activities.

A. Characterization of Existing Conditions:

- Existing agricultural land uses and agricultural districts will be described and mapped.

- Compilation of information contained in USDA Soil Surveys (Steuben and Yates Counties).
- Coordination with USDA is required.

B. Assessment of Impact:

- Impacts such as soil compaction, operational limitations and access to agricultural land will be discussed in the DGEIS.
- This section of the DGEIS will include summaries of the Preliminary Notice of Intent - Agricultural Protection Measures and Final Notice of Intent – Agricultural Impact Statement in accordance with NYS Agriculture and Markets Law Article 25-AA, Section 305, Subdivision 4. These reports will also be appended to the DGEIS.
- The NYS Agriculture and Markets Guidelines for *Agricultural Mitigation for Windpower Projects* will be utilized in the preparation of an agricultural mitigation plan, which will include 1) Siting Consideration 2) Construction Guidelines 3) Restoration Guidelines and 4) Two Year Monitoring and Remediation Guidelines.

C. Determination and Proposed Mitigation:

- Mitigation measures will be provided in the DGEIS for impacts identified as potentially significant. Potential mitigation measures may include:
 - Creation of new areas or restoration of dormant agricultural land.
 - Stripping and stockpiling topsoil from areas disturbed by construction of access roads, wind turbine sites and staging area / maintenance facilities.
 - Deep soil tillage in agricultural areas during restoration in order to mitigate compaction of topsoil. Removal of excessive rock concentrations in soil where necessary.
 - Typical drainage design concepts to minimize impacts from changes in drainage patterns.
- An Agricultural Mitigation Plan will be prepared in consultation with NYS Agriculture & Markets. The Mitigation Plan will require a 2 year post construction monitoring plan
- Compliance Agreement in accordance with 7 CFR 301.85 (Golden Nematode Quarantines) will be appended to the DGEIS.
- Sediment and erosion control plan, which includes a description of how the plan will be administered during site plan review and construction period.

2.3.1.5 Aesthetic Resources and Visual Impacts

A Visual Impact Assessment (VIA) will be prepared. It will employ the NYSDEC Policy Guide, "Assessing and Mitigating Visual Impacts." The VIA will consist of written text, photo documentation of existing view sheds, photo simulations of typical installations and other maps figures and diagrams etc. required for assessment. The report will be an appendix to the DGEIS with a summary provided therein.

A. Characterization of Existing Conditions:

- The DGEIS will inventory and characterize the existing visual environment and aesthetic resources as defined in the NYSDEC Policy on Assessing and Mitigating Visual Impacts. Focus will primarily be on the visibility of the project from surrounding lands containing sensitive receptors and locally important resources.
 - An inventory of aesthetically significant statewide resources will include:
 - Properties listed or eligible for inclusion in the National or State Register of Historic Places will be considered.
 - State Parks and recreation facilities (including High Tor Wildlife Management Area and the Finger Lakes Trail).
 - Other places in one or more of the categories of aesthetic resources of statewide significance listed in the NYSDEC Policy on Assessing and Mitigating Visual Impacts.
 - The inventory of locally important visual receptors may include:
 - residences
 - churches
 - parks or recreation facilities
 - schools
 - hamlets
 - main highway corridors
 - designated Scenic Highways or eligible for designation
- Aesthetic resources and visually sensitive resources will be identified and mapped and briefly described. Existing map resources will be utilized as well as state, county and local officials and knowledgeable resources.
- If a place is identified a designated significant resources, a visual assessment should be required.
- The visual impact assessment will consider resources within five miles of hills and ridges identified for turbine locations.

B. Assessment of Impact:

- The DGEIS will determine which of the visually sensitive receptors listed above will potentially have a view of the potential turbine sites.
- View shed drawings and line-of-sight drawings from varying distances will be utilized to determine from where towers will be visible.
- Visual impact assessment will be conducted from two perspectives. First, significant impact may occur if one or more of the State designated aesthetic resources of statewide significance lies within the view shed of the project. Second, from a local perspective, impact may occur if a local resource lies within the project's view shed. The photo analysis will consider the participating landowner properties as the locations for the turbine locations. The assessment will take a worse case approach when developing resource end control points and project end control points. A goal of the visual impact assessment is to reveal impacts and assess the effectiveness of mitigation strategies.
- Photo simulations will be prepared in order to provide as true a visualization of the change to the view shed. This will be done from a variety of typical viewpoints (minimum 12) in order to graphically represent the placement of wind turbines at typical locations.
- For reference, actual photography of installations using the same turbine equipment will be provided and put into context with regard to view shed at various distances from the unit.
- A generic shadow flicker analysis will be completed for the DGEIS. Its goal will be to determine the potential exposure to shadow flicker effects within the project area in order to relate potential shadow flicker effects with distance and location from the turbine locations.

C. Determination and Proposed Mitigation:

- A determination will be made regarding the potential significance of the impacts to aesthetically significant resources of statewide significance and resources of local importance from siting the wind turbines on the landscape.
- For those turbine locations that may be determined to result in a detrimental effect that diminishes the public enjoyment and appreciation of an inventoried resource (one that impairs the character or quality of such a place), mitigation will be proposed.
- Criteria for use in site selection will be developed where appropriate.
- The literature, as well as environmental assessments for similar projects, provides some general mitigation measures that have been shown to minimize the visual impact of wind power projects. These may include, but are not limited to:
 - Create visual uniformity of the otherwise visually intrusive element on the landscape by having the rotor, nacelle, and tower of each unit look as similar as possible.
 - Have the rotors spin in the same direction, not rest and have the same number of blades.
 - Bury the intra-project electrical collection system.
 - Strive for uniformity in height within a closely spaced array of towers.
 - Paint the units a uniform dull color or white so that they don't "sparkle" in the sun and draw attention by sharp contrast.
 - Minimize fencing, lighting and service roads to minimize visual impact.

2.3.1.6 Impact on Historic and Archeological Resources

Due to their height and geographic distribution along hill sides, it is likely that some individual turbine sites will impact historic resources. The overall study area includes sites identified as having important cultural and historical resources.

The NYSDEC has requested that all documents for State Historic Preservation officer (SHPO) review be copied to Rudyard Edick, Division of Environmental Permits.

A. Characterization of Existing Conditions:

- Coordination is being conducted with the New York State Office of Parks, Recreation and Historic Preservation, State Historic Preservation Officer (SHPO) towards a concurrence on the anticipated methodology. The SHPO generally agreed with the anticipated approach in dealing with cultural resource management. The study methodologies will be coordinated in direct consultation with SHPO.
- The DGEIS will contain a review of Cultural Resources based upon file searches of regulatory agencies, document research and, if necessary, additional field investigations.
- A standing structures survey of the overall project area, including an area of potential effect (APE) extending one-half mile from the project boundaries, has been conducted. This initial assessment has included a preliminary determination of the National Register of Historic Places (NRHP) eligibility for all the structures catalogued. Three structures in the project area are currently listed on the National Register of Historic Places: The Smith McCloud House, the Italy Valley Methodist Church and the James Fox House. All three are located on Italy Valley Road in the Town of Italy. Approximately 46 structures were preliminarily identified that possess characteristics, which potentially make them eligible for inclusion on the NRHP. They have been photographed and will be available on the GIS database developed for this project, provided to the SHPO and included in the DGEIS.
- SHPO is aware of the proposed methodology of the cultural resources assessment. A letter report presenting the results of the initial survey has been prepared and will be forwarded to the SHPO. SHPO will be afforded the opportunity to comment on the findings to date before completion of DGEIS.
- Existing historic and archeological resources will be characterized the DGEIS. The submittal to the SHPO along with documentation of the cultural resources assessment will be appended to the DGEIS.

B. Assessment of Impact:

- The DGEIS will discuss potential impacts to historic or prehistoric resources identified during the investigations of the project area.
- The results of these reports will be summarized in this section of the DGEIS and include a discussion of potential presence and significance of any historic or prehistoric cultural resources that may be affected by site planning.

- The assessment for historic structures may extend beyond the overall study is due to the potential for historic structures to be located within the view shed of the wind turbine sites.
- Archeological impact assessment will be confined to the overall project area.
- All cultural resource investigations will be performed in accordance with New York Archeological Council Standards. Project sponsors will consult with SHPO to establish criteria if Phase 1B, Phase II and Phase III fieldwork will be required. It is anticipated that Phase 1B fieldwork will be conducted after the siting criterion is developed and precise tower locations are known. The proposed approach for the Phase 1B will be described in the DGEIS and conducted as one of the conditions of the Findings Statement. SHPO's concurrence will be sought that the proposed siting criteria will result in a determination of no adverse effect. Copies of all Phase 1B, Phase II and Phase II work (if required) will be provided to NYSHPO to confirm that the project will have "no adverse effect"

C. Determination and Proposed Mitigation:

The applicant will consult with the SHPO prior to construction in order to convey the results of the Phase 1B investigations (if necessary) and to solicit a final determination on effects.

- Any conflict of the individual site plans with potentially significant resources will be identified along with the nature of the conflict (i.e. grading, filling) and provide solutions appropriate for the resource and approvable by SHPO.
- A description of any necessary mitigation measures, including avoidance or on-site archeological monitoring during construction, will also be included.

2.3.1.7 Noise Impacts

Wind turbines can be categorized as a noise source associated with facilities that are "fixed equipment", similar to generators, pumps, compressors whose effects of sound generation have the potential of adverse affect

A noise impact assessment will be conducted for the proposed wind farm project. The noise impact assessment and DGEIS will contain an assessment of noise generating characteristics of the proposed wind turbines (single and cluster) and review the potential impact on sensitive noise receptors as a result of the construction and operation of the project. The technical approach to be utilized for the noise assessment will comply with New York State Department of Environmental Conservation's Policy for Assessing and Mitigating Noise Impacts (June 2003), or result in an equivalent level of resource assessment as the NYS DEC policy and guidance document.

A report documenting the noise assessment and potential changes in sound levels associated with the project will be summarized in this section of the DGEIS and appended to the DGEIS. Goals of the noise assessment are as follows:

1. Identification of sensitive receptor types of importance.
2. Examination of "typical" scenarios for noise exposure.
3. Examination of construction noise exposure, as well as operational noise exposure.
4. Characterization of ambient noise and turbine noise (single and cluster) based on sound pressure level, frequency, duration, and tone.
5. Develop a relationship between predicted future noise and distance from the source taking into account factors such as land forms, structures, wind, weather, time of year, etc.
6. Develop a basis for understanding and determining what a reasonable "threshold of Significance" might be for this project. In other words, what future noise level (sound pressure level) and other noise characteristics are reasonably acceptable at a given receptor location (property line, seasonal cabin, permanent residence, business).
7. Develop criteria of setbacks that can be used as a guide to site turbines in a variety of settings with a reasonable assurance that "thresholds of Significance" will not be exceeded at designated receptors.

A. Characterization of Existing Conditions:

- The sound resulting from the operation of the wind turbines will be characterized in the DGEIS using noise criteria supplied by the manufacturers of the equipment proposed on this project. Landforms and structures, weather, wind conditions and time of year, among other factors will be considered as influencing factors to predict noise generated by the turbine.
- In order to characterize typical ambient noise levels within the project area, existing noise levels will be field measured, characterized and quantified at representative sensitive noise receptors. It is anticipated at this time that the most sensitive noise receptors will be the residences within hearing range of a turbine.

B. Assessment of Impact:

- A Noise Impact Assessment will be conducted which complies with or otherwise provides an equivalent technical level of resource evaluation.

An objective assessment of noise impact will be made by comparing the additional sound resulting from the project to the ambient noise under a variety of conditions. Worst-case scenarios will be examined.

- The noise impact assessment will present the impact as an estimate of the increase in background noise levels at sensitive receptors as a result of the additional sound from operation of the wind turbines under various conditions.

- The increase in sound pressure level between the ambient condition and the future condition will be projected. NYSDEC guidance states that if the difference between ambient and future noise levels is between 0-3 dB then there should be no appreciable effect on receptors. An increase between 3-6 dB may have potential adverse noise impacts for the most sensitive receptors. Increases above 6 dB may require a closer analysis depending upon the character of the receptors and surrounding land uses. Increases approaching 10 dB may require consideration of avoidance or mitigation. The study will recommend reasonable set back distances associated with these thresholds based on DEC factors determining the impact of noise on humans.
- Consider the potential noise impacts of multiple sites that could be within hearing range of a sensitive receptor.

C. Determination and Proposed Mitigation:

- The Noise Impact Assessment will identify where sensitive noise receptors could experience potentially significant adverse impacts from changes in sound pressure level, frequency, duration and tone .
- Where necessary, suitable mitigation measures intended to attenuate potential sound impacts will be proposed, including avoidance or buffer zones around noise sensitive receptors. Distance (setback or buffer) is the most applicable and typical method to attenuate increases in sound pressure levels.
- The Noise Impact Assessment will assess the reduction in sound levels that would be anticipated by implementing the proposed mitigation measures. These may include:
 - Best management practices during construction (for short-term impacts)
 - Location
 - Setback distance
 - Physical (vegetative) barriers at sensitive receptors

2.3.1.8 Energy Impacts

The DGEIS will contain a review of the impact on energy resources as a result on the operation of this project.

- The DGEIS will include discussions on generating capacity needs, consistency with the state energy plan and the Renewable Portfolio Standard to increase the amount of renewable energy in New York.

2.3.1.9 Solid Waste

The DGEIS will include a discussion on the impact the project will have on solid waste management.

2.3.1.10 Temporary and Short-Term Impacts

Within the evaluation of individual impacts, the DGEIS will identify temporary and short-term impacts that may occur. At this time, temporary impacts have been identified.

2.4 DGEIS Chapter 4: Alternatives

SEQR requires a description and evaluation of reasonable alternatives that are feasible, considering the objectives and capabilities of the project sponsor. Through scoping, several alternatives were raised for consideration. The DGEIS will include a discussion of the alternatives listed below. An evaluation and comparison of alternatives as they relate to the project goals and key impacts, will be presented.

- Project Scale and Magnitude
 - Number of Installations
 - Turbine Size and Tower Height
- Project Location
 - Feasibility of consolidating the project on state-owned land will be examined. However, at this time, New York State policies do not provide for this option.
- Variations in Tower Site Design
 - Individual Tower Sites
 - Arrays of Towers within the overall project area
- Alternative Uses / Technologies
- Project changes resulting from the possible adoption of the proposed Local Law A: “Town of Italy Wind Turbine Tower, Relay Station and Support Facility Moratorium Law 2004”
- Alternative Construction Phasing
- No Action Alternative

2.5 DGEIS Chapter 5: Unavoidable Adverse Environmental Impacts

The DGEIS will describe the unavoidable adverse environmental impacts will include necessary information on the extent, likelihood and long-term consequences of the identified impacts.

2.6 DGEIS Chapter 6: Irreversible and Irretrievable Commitment of Resources

The DGEIS will include a discussion on the irreversible and irretrievable commitment of resources that are anticipated to result from the proposed project.

2.7 DGEIS Chapter 7: Cumulative and Indirect Impacts

The DGEIS will include a section on potential cumulative impacts will acknowledging the potential impacts that, when taken together, may have a significant environmental effect.

This section will recognize that the generic EIS is evaluating a number of separate actions within an overall project area, which in accordance to Part 617.10(a)(1) “if considered singly, may have minor impacts, but if considered together may have significant impacts”.

This section will consider the status of a second independent wind energy project proposed by another developer for the Prattsburgh / Italy area. The DGEIS will identify elements of the projects, which may require contemporaneous consideration during the assessment of impacts.

2.8 DGEIS Chapter 8: Growth Inducing Aspects of Action

The DGEIS will include a section discussing the Growth inducing aspects of the proposed project.

2.9 DGEIS Chapter 9: Environmental Justice

The DGEIS will consider Environmental Justice issues related to the fair treatment and meaningful involvement of all people.

3.0 ADDITIONAL ISSUES RESULTING FROM SCOPING

The Draft Scoping Document was circulated to Involved and Interested Agencies and made available to the general public by the Lead Agency as of March 25, 2004. As a result of public scoping comments received verbally at the April 22, 2004 Public Scoping session and received in writing from the public and agencies, several new issues and potential impacts to evaluate have been added to this Final Written Scope. Issues resulting from public scoping that were determined to be prominent and relevant have been included in this Final Written Scope. Each topic will be evaluated in the Draft GEIS in the same manner as the impacts addressed in Section 2.3.1 of this document. Issues of potentially significant adverse impact have been identified for analysis in the development of the Draft GEIS. The issues and concerns added in the Final Written Scope include those listed below:

3.1 Health and Safety Impacts

Several health and safety related issues were raised through scoping. The relevant issues will be addressed in the Draft GEIS. The potential impact from each of these issues will be characterized in a variety of ways. Existing literature from published professional sources will be researched, documented and evaluated. The New York State Department of Health will also be consulted. The impact assessment for each issue will be placed into the context of the proposed turbine at the Prattsburgh/Italy site. It is anticipated that the most effective mitigation measure to address health and safety issues determined to be significant, and that can be incorporated into the siting criteria, will be distance and set backs. The Draft GEIS will provide recommendation for distance and setbacks.

- Ice Throw and Ice Shedding

Potential impacts from ice throw and ice shedding will be evaluated in the Draft GEIS. Existing literature will be researched and documented. An impact assessment will be drawn for the proposed turbines at the Prattsburgh/Italy site.

- Tower Collapse/Fall Zones and Blade Throw

The potential for tower collapse and blade throw will be assessed based upon information provided from the manufacture and past experiences with similar installations. In a worse case scenario, fall zones will be calculated and mapped for typical tower sites and typical locations.

- Lightning Strikes

Potential for impacts resulting from lightning strikes will be evaluated in the Draft GEIS. Grounding and installation details to prevent damage from lightning will be provided by the manufacturer. Power industry requirements in this regard will be identified.

- Electromagnetic Fields

The health effects from electromagnetic fields have been evaluated extensively for power generating and transmission projects. A search of literature for EMF effects related to wind turbines will be conducted and documented in the DGEIS.

- Human Medical and Psychological Effects

Through scoping, concerns were raised regarding the effect of wind turbines on persons suffering from certain psychological conditions. The Draft GEIS will include an assessment of the potential psychological effects that may result from noise and shadow flicker (strobe).

3.1 Impacts to Local Roads

Access, maintenance and use restrictions will be discussed. The construction of access roads and the potential impact of construction on local roads will be evaluated in a Construction Transportation Assessment. Impacts evaluated will include the ability (structural and geometric) of existing roads, bridges and culverts to carry equipment and materials. Potential mitigation includes upgrade, repair and/or bonding. The assessment will provide the following:

- Criteria for determining suitable access routes
- Methodology for documenting "before and after" conditions
- Mitigation measures and responsibility for determining when mitigation is necessary
- Statement of responsibility for implementing mitigation

3.2 Blasting and Seismic Geological Issues

The Draft GEIS will review relevant geological information, available through New York State and Federal Agencies (i.e. New York State Department of Education and the United States Geological Survey) as well as published studies available through local universities in order to evaluate the underlying geology within the study area to determine general suitability and understand potential impacts. The Draft GEIS will also include an evaluation of potential seismic activity and bedrock structures that may be of relevance to the foundation design. It is understood that during final site selection and site plan development a site-specific subsurface geotechnical investigation will be conducted for each tower location. The geotechnical report will characterize the soils, bedrock and groundwater aquifer. Site specific foundation design will be accomplished using the collected data. At this time, blasting is not anticipated for the installation of the wind turbine tower bases, however the potential effects of blasting will be evaluated in the Draft GEIS.

3.3 Socio-Economic Impacts

The socioeconomic evaluation in the Draft GEIS will include a description of the existing economic and land use situations, including the following:

- Schools
- Open space and recreation
- Police, fire and emergency services
- Telecommunications

- Industry
- Services of Employment (NYS Dept. of Labor data)
- Tax base (residential, commercial, industrial)
- Commercial Business
- Local demographics
- Land use statistics

Impact assessment will include:

- Short and long-term effects from construction related jobs
- System operation
- Payments to land owners for property leases and easements
- Payments in lieu of taxes (PILOT)
- Impact on existing business, including but not limited to tourism
- Recreational desirability
- Residential desirability
- Decommissioning
- Temporary and permanent jobs
- Fee to SCIDA
- Impact on Town and County Services
- Affect on utility rates
- Benefits to the Community
- Tax implications to Community (Town, County, School)

3.4 Property Values

A concern was raised in Scoping regarding potential reduction in property values. The Draft GEIS will assess the possible changes in property values. Existing research and other documentation (preferably from similar projects) will be used to better understand the issue and will be summarized in the Draft GEIS. The town Assessors office will be contacted as well as the New York State Office Real Property Services in order to obtain information. A survey of municipalities hosting other wind farm projects in New York State will be conducted. The assessment will draw conclusions regarding the affect on property values in the Town of Prattsburgh and Italy resulting from this project.

3.5 Groundwater and Wells

The effect of the project on groundwater supply and recharge will be evaluated in the Draft GEIS. The evaluation will include a review of the geologic data sources as outlined in Section 3. 2 and 2.3.1.2. Environmental factors such as the effect of the project on surface water recharge, groundwater conductivity and groundwater quality will be evaluated.

3.6 Decommissioning

The Draft GEIS will include a discussion of potential scenario(s) in which the wind farm system or individual turbine units no longer operate. Decommissioning options will be presented.

3.7 Mandated FAA Lighting

The Federal Aviation Administration regulations for tower lighting will be utilized in order to identify the minimum lighting requirements. FAA procedures and approval will be identified.

3.8 Obstruction of FCC Regulated Signals

Federal Communication Commission (FCC) regulations will be utilized in order to determine that construction and operation of the wind turbines will be in compliance with FCC regulations. The Draft GEIS will identify which category(s) of radio signals that may potentially be interfered by the operation of the wind turbine generators. Existing literature will be researched in order to document past experiences at operating wind farms.

3.9 Land Title

Questions were raised during scoping regarding the status of real estate transactions and land title. Title searches on properties proposed for construction must be conducted prior to construction. It is understood that towers can only constructed on lands having marketable title.

4.0 GLOSSARY AND ABBREVIATIONS

The DGEIS will include a glossary of terms used in the text as well as a list of abbreviations and acronyms.

5.0 APPENDICES TO DGEIS

It is anticipated that the DGEIS will be supported by the following additional studies and appendices:

- SEQR related Agency Correspondence
- Cultural Resources Assessment
- Wetlands and Habitat Study
- Avian Study and Data Analysis Report
- Bat Survey Report
- Avian Risk Assessment
- Bat Risk Assessment
- Agricultural Mitigation Plan
 - Preliminary Notice of Intent and Agricultural Protection Measures
- Visual Impact Assessment
- Noise Impact Assessment
- Construction Transportation Assessment