

Hounsfield Wind Farm

Final Scoping Document

For the New York State Environmental Quality Review
Draft Environmental Impact Statement

Town of Hounsfield
Jefferson County, New York

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September 17, 2008

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1.0 INTRODUCTION

This Scoping Document is intended to define the scope of information to be included in the Draft Environmental Impact Statement (DEIS), to be prepared in accordance with the State Environmental Quality Review Act (SEQRA Environmental Conservation Law [ECL § 8-0101 et seq.; 6 NYCRR Part 617]).

1.1 Project Description

Upstate NY Power Corp (Upstate Power) proposes to construct the Hounsfield Wind Farm, a wind-powered electric generating facility on Galloo Island in the Town of Hounsfield, Jefferson County, New York (Proposed Action or Project). The Proposed Action will consist of the installation and operation of up to 84 wind turbine generators (WTG) for the purpose of generating up to 268.8 Megawatts (MW) or less of electricity in the Town of Hounsfield, Jefferson County.

1.2 Proposed Action

The Proposed Action consists of the construction and operation of the Project (which is subject to review under SEQRA) and the construction of transmission lines and related facilities (which is not subject to review under SEQRA).

The Project, which is subject to review under the SEQRA regulations (6 NYCRR Part 617), will include the installation and operation of up to 84 wind turbines on Galloo Island, together with the associated collection lines (below grade and overhead) and related facilities including a docking facility, helipad, living quarters, parking areas, a batch plant, water and waste treatment facilities and operations and maintenance facilities. Specifically the project includes;

- Construction and Operation of up to 84 WTG. The proposed WTG will be a 3.0 MW generator with a 90 meter blade rotor diameter and a hub height of 80 meters, for a total maximum height of 125 m (410 feet) from blade tip to ground.
- Construction of a 34.5 KV electrical collection system (ECS) connecting all WTG to an on-island electrical substation. ECS will be installed both under and above ground based on site conditions.
- Construction of (up to 32 ft wide) access roads to each WTG.
- Construction of an inlet slip docking facility to allow for equipment delivery.

- Construction of an operation and maintenance facility building.
- Construction of a temporary rock crushing facility and concrete batch plant.
- Construction of temporary housing facilities to house up to 200 construction workers.
- Construction of two 12-unit permanent housing facilities for operation and maintenance staff.
- Construction of a potable and fire protection lake water intake system.
- Construction of a potable water treatment system and a sewage treatment system.
- Construction of a closed loop geothermal heating and cooling system for permanent facilities with the closed loop system placed along the Lake Ontario/Galloo Island Shoreline.

Additionally, the transmission lines and related facilities will include construction and operation of an approximately 51.5-mile transmission line (9 miles under Lake Ontario, 42.5 miles across the mainland), together with interconnection facilities and other related facilities. The submarine portion of the transmission line will consist of a single 230 kV cable that will be installed using a combination of methods, including water jet blasting and/or hydro-plowing. It is anticipated that the cable will have three cores and will be buried at a depth of up to 6 feet. A sea bed survey will be conducted to determine the appropriate methods of cable installation and cable depth.

The construction and operation of the 51.5-mile transmission line, and the substations (one on Galloo Island and one in Parish, New York) is subject to the exclusive review jurisdiction of the New York State Department of Public Service (NYDPS) under Public Service Law Article VII. As such it is a Type II action under SEQRA (6 NYCRR §617.5[c][35] and therefore not subject to SEQRA review (6 NYCRR §617.5[a]).

1.3 Purpose of Scoping and the SEQR Process

On November 20, 2007, the Town of Hounsfield Planning Board received an Application for Site Plan Approval and SEQRA Environmental Assessment Form (EAF) from Upstate Power for development of the Proposed Action. The Planning Board determined that the Project was a Type I Action under SEQRA. Accordingly (pursuant to 6 NYCRR §617.6(b)(3)) on December 5, 2007 the Planning Board circulated a “Lead Agency Coordination Letter” and EAF Part 1 to all other Involved Agencies. In this correspondence, the Planning Board indicated its desire to act as Lead Agency for the purpose of a “coordinated” SEQRA review of the Proposed Action.

Subsequently, by letter dated April 24, 2008 The New York Department of Environmental Conservation (NYDEC) advised the Planning Board of its desire to act as Lead Agency.

The Lead Agency dispute was submitted to the Commissioner of DEC in accordance with the requirements of 6 NYCRR § 617.6(b)(5). On April 24, 2008, the Commissioner determined that based on the criteria set forth in 6 NYCRR § 617.6(b)(5)(v) DEC should act as Lead Agency.

On May 21, 2008, the NYSDEC (pursuant to 6 NYCRR §617.7) determined that the Project may have the potential for a significant adverse environmental impact on the environment and that a Draft Environmental Impact Statement (DEIS) must be prepared.

Also pursuant to 6 NYCRR §617.8, on 05/21/08 the NYSDEC required Public Scoping for the Proposed Action. Public Scoping, under 6 NYCRR §617.8, is the process by which the Lead Agency, in cooperation with the public and involved or interested agencies, identifies potentially significant adverse impacts that should be considered in a DEIS. As part of the EIS process and in accordance with 6 NYCRR §617.8, this Draft Scoping document was prepared by Upstate Power and on May 21, 2008 was circulated to Involved and Interested Agencies and the Public for review and comment.

Written comments on the Draft Scope for the Proposed Action were accepted until the end of the business day on June 30, 2008.

2.0 PROJECT DESCRIPTION

The DEIS will be prepared to meet the content and format requirements outlined in 6 NYCRR §617.9. A general description of content or approach anticipated for each chapter is presented below.

Figure 1 shows the Project layout based on the initial Site Plan application submitted to the Town of Hounsfield Planning Board (the "Site Plan Application Layout"). The Site Plan Application Layout is the most likely Project layout based on conditions known at the time of this Scoping Document. Changes to the Site Plan Application Layout may be required to accommodate SEQRA mitigation measures and other conditions. However, if alternative layouts are deemed possible, those components will also be assessed in the DEIS. The DEIS will focus on the construction and operation of the Project on Galloo Island; however where appropriate, information on the transmission route will be included.

Following the cover sheet, table of contents and executive summary, Chapter 1 will include discussions of the Proposed Action, Project Purpose, Public Need and Benefit, and a summary of the SEQR process in the context of the Project. The Chapter will also discuss the regulatory review process for the transmission line under Public Service Law Article VII.

As noted above for purposes of this Scoping Document, the term “Project” shall mean the installation and operation of up to 84 wind turbines on Galloo Island together with the associated collection lines (below grade and overhead), a docking facility, helipad, living quarters, parking areas, operations and maintenance, batch plant, water and sewage treatment facilities and related facilities. The term “Project Area” shall mean the geographical area encompassing the Project. In most instances, the Project Area will be the area immediately surrounding and including Galloo Island. However, some studies, such as the viewshed analysis, will extend beyond the general Project Area.

2.1 Project Purpose, Needs and Benefits

The DEIS will include a description of the following topics/issues:

- The DEIS will identify and discuss the Project sponsors goals for the Project as well as the Project Sponsor’s capabilities.
- The Project’s expected electric power generation and the need and market for this electricity including the Project’s impacts on the use and conservation of energy. This will include the nameplate capacity, capacity factor anticipated and the total anticipated annual production. This discussion will include a demonstration that the facility will satisfy electric generating capacity needs or other electric systems needs in a manner reasonably consistent with the most recent state energy plan;
- New York State and national policies and goals regarding wind energy;
- A description of the existing power grid in the region and its current capacity, as well as regulations governing its expansion; and
- Physical interconnections to the power grid, the power market, and anticipated impacts of the Project on the market.
- Characterization of emissions reductions from fossil fuel generation facilities offset by output of the proposed project. Displacement of other renewable energy projects will be indentified.
- The expected economic benefits of the Project due to increased jobs, increased economic activity, landowner payments, taxes, Payments in Lieu of Taxes (PILOT) and other payments.

2.2 General Description

The General Description section of the DEIS will, at a minimum, describe the following:

- General description of the Project Area including location, topography, existing land uses, boundaries, aerial photos and maps;
- Total Project Area including area of disturbance at each individual site and final developed site areas;
- Project Layout: One or more Project layout maps and aerial photos will portray proposed locations of turbines, collection lines and related facilities, docking facility, helipad, living quarters, and operations and maintenance facilities. Some of the Project layout maps and aerial photos will portray transmission facilities, electrical interconnection facilities and associated substations and related facilities (which will be shown for informational purposes only, as these components are not subject to SEQRA review). All components will be portrayed relative to the locations of public buildings, overhead electric lines, and property lines;
- Wind Turbine Information including drawings and specifications for wind turbine model(s) most likely to be used for the Project, size and rotor swept area;
- Project Component Specifications including temporary and permanent met towers, temporary and permanent laydown/construction staging areas, docking facilities, helipad, operations and maintenance facilities, living quarters and any other project development components that will potentially affect existing conditions in the project area (e.g., wetland mitigation sites);
- Foundations, Service Roads and Trenches: typical specifications and drawing(s) for anticipated wind turbine foundations; new access roads; and collection lines (underground and overhead), junction boxes, and utility trenches; and
- Electric Transmission Facilities: As necessary to give a fuller understanding of the Proposed Action, the description will include information on the Transmission System (which as noted above, is by regulation is separate from the SEQRA process). This discussion will include information on electrical substation(s), a description of the transmission system and information relevant to any potential right-of-way options.

2.3 Project Design

This section will include discussions on the factors affecting Upstate Power's selection of the Project location and the location of proposed Project components, including wind turbines and likely wind turbine models. Factors that led to the specific turbine and component layout such as wind resource evaluation, turbine spacing and/or orientation, wind turbine model selection, site constraints (setback requirements, avoidance of wetlands, landowner preference, etc.), access road and interconnect design considerations, and avoidance of identified adverse environmental impacts. This discussion will be used as a basis for reasonable alternatives in Section 4.0.

2.4 Construction

This section of the DEIS will describe the following, including plans and maps as figures:

- Typical clearing and grading limits for individual turbine locations;
- Typical footings and foundations;
- Typical clearing and grading limits for all components of project footprint, including temporary and permanent access roads, underground and overhead collection lines, substation, housing, etc.;
- Incorporation of a concrete batch plant, including size and general operational issues;
- Sources of sand and aggregate for the foundations and access roads;
- Structural considerations, including but not limited to roads (operating, seismic, wind, snow), public safety;
- Identify typical culverts for road crossings through streams or wetlands;
- Construction Material Deliveries and Storage: A plan for transport of wind turbine components, materials, and construction equipment to the site and within the Project Area will be provided;
- Spill management: Identify chemicals to be used or stored onsite, if any, and describe spill response plan if applicable;

- Solid Waste Generation and Disposal;
- Construction Activities and Schedule: Anticipated schedule and phasing for Project construction will be described and presented in graphical form, including expected starting and ending dates. Principal activities to occur during each phase of construction will be described;
- Construction Areas: The DEIS shall include one or more maps depicting the areas anticipated to be impacted during Project construction, including equipment staging areas, parking areas, crane pads, and trenching areas;
- Environmental Restoration: The DEIS will summarize anticipated measures to conduct re-grading and stabilization of temporary impacts to wetlands, streams and other important habitat areas. This will include activities to re-establish wetland hydrology (if disrupted), restore disturbed habitat, construct wetland compensatory mitigation projects, stabilize disturbed areas subject to the SPDES Stormwater General Permit, remove and properly dispose of temporary road materials, and other restoration activities. A draft Stormwater Pollution Prevention Plan (SWPPP) will be provided as an appendix to the DEIS;
- Environmental Monitoring: The DEIS will summarize an environmental monitoring plan that provides for an independent monitor to oversee the various mitigation activities and Best Management Practices identified during the environmental review. This plan will be provided as an appendix to the DEIS;
- Blasting: Discussion of whether blasting or dewatering will be required to construct tower foundations and other project components. A Blasting Plan will be provided as an appendix to the DEIS; and
- Laydown areas and transportation routes (ports etc.)

2.5 Operation and Maintenance

This section of the DEIS will describe:

- The general operation of the Project, including the number of hours per day and under what conditions the Project will operate; the number of employees required to operate the Project and what their duties will be; and the useful life of the Project;
- Routine maintenance and required equipment;

- Storage and use of any road materials, including the use of sand; and.
- Summarize the Operations and Management Plan that focuses on long term environmental management planning for the project development area under control of the project sponsor including environmental considerations to be included in the ongoing maintenance of the facility and a contingency plan to assess and minimize environmental impacts during major repairs and decommissioning. This plan will be provided as an appendix to the DEIS. At a minimum, this plan will include: Wetland mitigation project maintenance; On-going monitoring and management practices to ensure that restoration activities are successful; General maintenance practices ensuring avoiding of future wetland impacts; Management of the ECS; Ice management strategies needed to maintain clear areas around dock or pierhead; Procedures for access to project components that require major repair; and inclusion of an invasive species management plan, to control invasive species on the island and prevent the spread on invasive species to the mainland.

2.6 Required Permits and Approval Requirements

This section of the DEIS will list all known and anticipated permits and approvals required from Federal, State and local authorities, including a description of the approval being sought, the current status of the application and, if applicable, the date obtained and the date of expiration. This discussion will include an explanation of the authorities of the Lead Agency and the cooperating agencies. A record of consultation with State and Federal Agencies will also be included, including how the NEPA and SEQR processes will be coordinated, and how Section 106 historic preservation requirements will be met. This section will include a discussion of the PSL Article VII process and how the DEIS complements that process.

2.7 Project Sponsor

This section of the DEIS will:

- Identify the project sponsor and their experience developing wind energy projects.

3.0 RESOURCE CHARACTERIZATION, IMPACT ASSESSMENT, AND MITIGATION

For each type of potential adverse impact identified through scoping, the DEIS will present the following:

- A characterization of existing conditions or situations placing the potential impact in context with the geographical Project Area and the Proposed Project;

- An assessment of each impact with regard to its likelihood of occurring and its severity in both the short and long term, using Project specific information, existing research, special studies, and current regulations and public policy;
- Proposed mitigation measures. Mitigation costs and practicability will be weighed in the balancing required by SEQR. Where applicable, both short-term and long-term impacts will be evaluated for each potential impact;
- A determination for each impact relative to the anticipated level of significance, and where appropriate, mitigation measures to reduce impacts will be proposed;
- A description of adverse environmental impacts that can not be avoided or adequately mitigated;
- Any irreversible and irretrievable commitment of resources; and
- References for the information in each section, with emphasis on information from the following sources: New York State government agencies; peer-reviewed professional journals; actual field studies in the Project Area and available information from similar existing installations in New York State.

3.1 Topography, Geology and Soils

Characterization

The DEIS will describe and characterize the topography, soils and geology in the Project Area, including any karst features. The characterization will be initially based on information from aerial photos, New York State Museum, New York State Geologic Survey, United States Geological Survey and existing studies in the area, including any data available from the Town of Hounsfield. Based on that information, an assessment will be made regarding appropriate tower foundations and service road design. Areas of soil limitations, such as excessive wetness and shallow depth to bedrock shall be mapped. Underwater resources including bedrock outcroppings, sediment type and depth will be evaluated. A review of the NYS Seismic Building code Seismic Map will be done to characterize the seismic risk of the area.

Impacts

The DEIS will assess impacts to:

- Topsoil and subsoil due to proposed Project development;

- Limitations and effects of topography, bedrock and soil on Project layout, construction and restoration;
- Disposition of bedrock excavated for construction; and
- Bedrock, in particular shallow bedrock conditions present on Galloo Island (Blasting is addressed in Sections 3.11).

Mitigation

The DEIS will discuss potential mitigation measures that may include:

- Alternate excavation methods; and
- Reuse and restoration of soils.

3.2 Land and Land Use

Characterization

The DEIS will include descriptions of existing landforms and land uses in the Project Area. Land use will be characterized by utilizing available GIS data, aerial photography, and field observations. Any floodplains will be mapped. This data will be portrayed as land use and land cover maps in the DEIS.

Impacts

The DEIS will assess impacts, including but not limited to:

- Project Area to be permanently reserved exclusively for Project operations, including wind turbine areas, access roads and support operations;
- Impacts to 100 and 500 year flood events;
- Project Area to be temporarily disturbed during construction; and
- Potential impacts on steep slopes or hillsides.

Mitigation

The DEIS will discuss potential mitigation measures that may include:

- Removal of temporary facilities required for project construction but not critical for the operation and maintenance of the project (for example: construction worker housing).

3.3 Agricultural Resources

Characterization

The DEIS will describe and map existing agricultural land uses and agricultural districts. There is limited agricultural use on the island. Currently no agricultural districts exist on the island. The northern portion of the island is used to grow hay, alfalfa and grains to feed a stocked deer population. There is limited productive use for commercial agriculture.

Impacts

The DEIS will discuss impacts including, but not limited to:

- Soil compaction, operational limitations and access;
- Impact of construction on erosion;
- Impact of construction on soil mixing;
- Long term impacts on topsoil and erosion; and
- Elimination of active agricultural uses on the island.

Mitigation

The DEIS will discuss potential mitigation measures that may include:

- Re-use of topsoil on-site;
- Disposition of rock excavated for burial of electric collection lines in active agricultural fields; and

- Minimization of disturbance of agricultural fields for future use.

3.4 Water Resources

3.4.1 Surface waters

Characterization

The DEIS will identify and describe streams and surface waters (including Lake Ontario) within the Project Area and their uses and classifications. A map will also be included that also shows the location of any Project components in relation to surface waters.

Impact Assessment

The DEIS will assess impacts including, but not limited to:

- Potential impacts, including water quality and discharge to streams and surface waters from Project construction and operation;
- Potential impacts from the construction of a docking facility and offshore barges used to transport Project equipment;
- Potential impacts from water and sewage treatment;
- The need to dredge around docking facilities;
- Expected boating activities associated with maintenance and inspection of project facilities (in particular the estimated number of trips to and from the island) and the potential impacts to water quality;
- Navigation impacts for construction, operation, maintenance and decommissioning;
- Use of herbicides to control undergrowth;
- Potential impacts on streams and surface waters from material releases; and
- Use of lake water intake for drinking water, fire protection supply, dust control, concrete batch plant and a closed loop system for geothermal heating and cooling.

Mitigation

The DEIS will assess potential mitigation measures that may include:

- Methods to prevent degradation to water and to meet permit requirements of Article 15;
- The design of typical culverts to be used, if any;
- Measures to ensure the containment of construction materials, particularly concrete washout, machinery fuel and oil, and other chemicals; and
- Measures by which the Project will meet the conditions of regulatory agency storm water permits and where applicable preparation of draft permit materials, including:
 - Obtaining storm water permit for construction activities (disturbance exceeds one acre);
 - Development of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the State Pollutant Discharge Elimination System (SPDES) General Permit GP-0-08-001 for Construction Activities, NYSDEC Technical Guidance “Standards and Specifications for Erosion and Sediment Control” (August 2005), and NYSDEC Technical Guidance “Stormwater Management Design Manual”;
 - Procurement of other permits required by General Permit GP-0-08-001; and
 - Obtaining a general permit for the operational phase of the Project.

3.4.2 *Sediment*

Characterization

The DEIS will describe the sediment characteristics of Lake Ontario, based on:

- Available data from published sources; and
- Contamination issues that may or may not be encountered in the installation of in-water components (not subject to PSL Article VII review) in particular the slip channel approach.

Impact Assessment

The DEIS will assess impacts, including but not limited to:

- Construction of the dock and related impacts; and
- Use and future maintenance of dock facilities.

Mitigation

The DEIS will describe potential mitigation measures that may include:

- Alternative construction methods;
- A sediment and soil erosion control plan;
- Avoidance of construction dates sensitive to fish habitat and spawning; and
- Management of contaminated sediment, including avoidance, containment or settling basins.

3.4.3 *Wetlands*

Characterization

The DEIS will describe wetlands in the Project Area, based on:

- Surveys of state and federal databases;
- Physical survey of wetland boundaries will be done to verify the mapped data and to identify additional wetlands that are not shown on available maps and databases;
- General wetland descriptions and maps including: location, size, soil type and vegetative cover type including a determination of the function and value of each wetland; and
- Wetland delineation reports for any areas that would be impacted by project construction.

Impact Assessment

The DEIS will assess impacts, including but not limited to:

- Precipitation during construction activities that could result in silt-laden runoff entering Project Area streams and wetlands;
- Identification of any unavoidable impacts to wetlands, including change in vegetation type;
- Indirect impacts such as changes in hydrology, fragmentation, isolation or habitat quality.
- Loss of wetland area due to construction of WTG, the collection lines and other Project components both temporary and permanent impacts. These impacts will be detailed on a wetland-by-wetland basis and according to expected agency jurisdiction, recognizing that a habitat change is considered a permanent impact by NYSDEC;
- Discussion of alternative project designs that were examined to avoid and reduce impacts to wetlands;
- Accidental spills and likelihood of impacting adjacent wetlands; and
- Consideration of any wetland impacts from the Project will include a discussion of offsetting Project benefits

Mitigation

The DEIS will describe potential mitigation measures that may include:

- If unavoidable wetland impacts are expected to result from Project construction activities, a discussion of compensatory mitigation being considered will be included. Proposed mitigation will conform to DEC wetland mitigation guidelines, *Freshwater Wetlands Regulation Guidelines on Compensatory Mitigation*. ONLINE. 29 Oct. 1993. Available: http://www.dec.ny.gov/docs/wildlife_pdf/wetlimit.pdf;
- Restoration of impacted wetlands to pre-construction conditions where applicable;

- An Invasive Species Control Plan to minimize the spread of invasive propagules throughout the project development area, and in particular in regulated wetland and stream areas;
- Implementation of a Stormwater Pollution Prevention Plan and Erosion and Sediment Control Plan to minimize impacts during construction;
- Replacement of wetland areas lost due to construction as required by state or federal law that conform to NYSDEC and USACE wetland mitigation guidelines, including the long term access and management of the property; and
- In the event that wetlands cannot be completely avoided, these areas will be identified in the DEIS and methods for minimizing wetland impacts will be addressed in the soil erosion and sedimentation plan to be included in the DEIS.

3.4.4 *Groundwater:*

Characterization

The DEIS will describe groundwater resources in the Project Area description as well as proposed wind turbine tower foundation design, including:

- Potential sources of groundwater recharge on the island;
- Prevalence of groundwater use for drinking water; and
- Likelihood of occurrence of seasonal perched water.

Impact Assessment

Impacts to groundwater are expected to be minimal. No permanent residential activities are currently present. Groundwater will not be used for drinking water or other human use. Due to the remote nature of the island, there is no risk to impacting aquifers of adjacent areas or municipalities. The DEIS will assess impacts to groundwater resources, as stated below:

- Potential impacts to groundwater quality will be considered for short-term construction activities and long-term location of the operational facilities.

Mitigation

The preparation and implementation of a SPDES permit and SWPPP will limit potential impacts to groundwater resources. No other mitigations are anticipated at this time. Mitigations will be discussed if the DEIS determines that adverse impacts to groundwater resources may occur.

3.5 Wildlife and Habitat

Impacts to habitat will result primarily from construction of individual turbine sites, Project components and collection systems and can in turn, impact wildlife. Impacts to wildlife may also occur as a result of Project operation. 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 DEIS. Special attention will be given to avian and bat species due to potential for collision with wind turbines.

The New York State Open Space Plan has identified Galloo Island as part of the Great Lakes Shorelines and Niagara River priority conservation project area in DEC Regions 6, 7, 8 and 9. The area includes spawning and nursery habitat for various fish species including threatened and endangered species such as the lake sturgeon, and nesting, feeding and resting habitat for waterfowl. The DEIS will discuss how the proposed action is consistent with this plan.

The New York Natural Heritage Program, NYS Department of Environmental Conservation – Division of Fish, Wildlife and Marine Resources, is considered a primary resource agency for this work. The U.S. Fish and Wildlife Service (USFWS) will also be consulted, in its role as an interested agency, as well as published USFWS references including:

- Surveys for endangered and threatened species will be done in consultation with the NY Natural Heritage Program and NYSDEC Endangered Species Unit; and
- Bat and avian studies and field collection will be designed and carried out in consultation with NYSDEC and USFWS staff. The Bird and Bat Preconstruction Study Plan that was developed in consultation with NYSDEC is attached as Appendix A.

Habitats within and adjacent to the Project Area will be identified by:

- Aerial photographs and topographic maps showing predominant ecological communities;
- Identification of all NYSDEC designated Critical Environmental Areas and Audubon designated important bird areas; and

- Field studies, as described below.

A detailed report on all studies will be appended to the DEIS and a synopsis incorporated into the DEIS text.

3.5.1 *Flora and Fauna*

Characterization

- The DEIS will contain a description of the flora and fauna in the Project Area (See Scope of Work for Ecological Services (Appendix B). A survey of flora and fauna will be conducted by a professional biologist. Typical habitats and plant communities will be characterized and depicted on habitat maps for the entire island in the DEIS, including the identification of dominant plant species in each plant community. This survey will be undertaken three times between June and September. The entire island will be walked. Habitat Types will be identified and mapped. Based on habitats observed and an evaluation of geographic distribution maps, a list will be compiled of the mammal, reptile, and amphibian species likely to be present on the site. Animals seen on site will be documented based on the habitat type in which they were observed. Current deer herd management practices will be described.

Impact Assessment

- **Plant Communities:** The DEIS will quantify how many acres of each plant community will be impacted by construction, including fragmentation, for all Project components, including turbine sites, collection system, soil stockpile areas, and substation; and describe the degree of impact (from minimal to total removal). Fragmentation will be determined by analysis of maps overlaying the habitat areas and the project layout; and
- **Mammals, Reptiles, and Amphibians:** The DEIS will characterize the potential temporary displacement or permanent loss of mammal species, including the managed deer herd, and mortality of small mammals, reptiles and amphibians anticipated during construction and operation due to habitat loss, fragmentation, or degradation.

Mitigation

- Evaluate potential mitigation measures, such as timing of construction activities or alternative design options, including alternate locations for the substation;
- Vegetation management plan for addressing long term maintenance of desirable ecological communities; and

- Restoration plans that include planting native species to support natural ecosystems functions.

3.5.2 *Rare, Threatened and Endangered Species*

Characterization

- The DEIS will include an assessment of impacts to rare, threatened and endangered species and species of concern likely to exist in the Project Area (See Appendix A). Any such species will be identified in consultation with the USFWS, the NY Natural Heritage Program and the NYSDEC endangered Species Unit and confirmed, if needed, according to the specified time limits of determinations by each agency. Field surveys of any rare, threatened or endangered species will be recorded. Habitats will be evaluated for the potential presence of rare, threatened and endangered species.

Impact Assessment

- The DEIS will characterize temporary displacement or permanent loss of rare, threatened and endangered species anticipated during construction and operation due to habitat loss, fragmentation, or degradation.

Mitigation

- Evaluate potential mitigation measures such as timing of construction activities or alternative design options.

3.5.3 *Avian species*

Characterization

Factors influencing the magnitude of impacts 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 conditions, 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.

- Information on breeding birds will be obtained from the NYS Breeding Bird Atlas and from field studies described below;

- Information on nocturnal bird migration will be obtained from onsite field studies, described below, and also from other migration studies, local and regional bird banding stations and avian experts familiar with the Project Area;
- Information regarding avian species occurrence will be collected from the Derby Hill Observatory and local birding clubs. Other groups will also be contacted to see if they have pertinent information including the Nature Conservancy and Ducks Unlimited.
- Upstate Power will initiate field studies of avian use of the Project Area (see Appendix A). These studies will be designed and implemented in consultation with the NYSDEC and the USFWS and will include the following types of studies:
 - Breeding Bird Study. A field biologist will follow a prescribed survey route through the Project Area in the breeding season of May through July 2008 to identify and quantify resident and breeding birds present in the area.
 - Diurnal Bird Movement Study. A field biologist will visit the Project Area weekly from March 15 – November 15 to identify activity and use of the area by hawks and other raptors, passerines, waterbirds, and waterfowl active during the daytime.
 - Radar Study. Trained field technicians will operate marine radar equipment positioned in the Project Area that will count the number of and flight heights of migrating birds and bats flying through the area at night. Radar studies will be conducted during nighttime hours during the periods of expected peak spring and fall migration, approximately April 15 until June 1 and August 7 and October 7, 2008.
 - Wintering Bird Study. Trained field technicians will conduct diurnal visual surveys for birds, focusing on wintering raptors from November 2007 until March 2008. Counts of other avian species, including passerines and waterfowl will also be conducted concurrently.
 - Avian Acoustic Survey. An avian nocturnal flight call survey will be done from April 15 - October 31, 2008. The acoustic equipment will gather information on the species composition, quantity of calling and relative loudness of calls. This will supplement the data gathered by the radar equipment.

Methods and results of the avian studies will be presented in reports that will be provided as appendices to the DEIS. The DEIS, with the avian study reports as appendices, will discuss:

- The seasonal occurrence of birds migrating through the Project Area;

- The potential for listed, endangered or threatened avian species to use the Project Area;
- Design of project lighting to avoid upward directed lighting.
- The migration activity of birds through the Project Area; and
- Influence of climatic conditions on migratory activity.

Impact Assessment

The DEIS will assess impacts including:

- Potential impact of Project operation on avian migration activities, considering observed species; numbers; flight patterns (including altitude); climatic conditions; regional geography; data from other studies (including mortality rates due to collisions at similar installations); data from nearby observing stations; turbine geometry, operating characteristics, and maximum tip height; and
- Temporary displacement or permanent loss of migrating and locally breeding species anticipated during construction and operation due to habitat loss, fragmentation, or degradation.

Mitigation

The DEIS will discuss potential mitigation measures that may include but are not limited to:

- Reduction of tower lighting, including FAA lighting, to the minimum practicable amount;
- Timing of construction to limit interference with breeding birds;
- Minimization of project lighting for all operational components including housing, maintenance buildings and substation;
- Design of structures to avoid raptor perch and nesting activities;
- Measures to avoid construction in critical habitat areas for threatened and endangered species including scheduling construction to avoid interruption of breeding and nesting activities, and relocation of project components; and

- Limiting of mowing project area grasslands to times that will not impact residential breeding bird activities.
- Purchasing land separate from the project area and/or managing land on Galloo Island to provide habitat for grassland, edge, wetland or forest-dependant bird species.

3.5.4 Bats

Characterization

The DEIS will describe:

- Data and information collected from NYSDEC and other published sources on bat fatalities from wind turbine collisions at US wind farms;
- Results of preliminary assessments of bat prevalence in the Project Area; and
- Studies of numbers and species of migrating and resident bats in the Project Area. Specific study plans and procedures will be undertaken as detailed in accordance with the Pre Construction Avian and Bat Work Plan that is included as an appendix (see Appendix A):
 - Radar Study: Results of the spring and fall radar studies performed as part of the avian assessment will be correlated with data from the avian and bat acoustic monitoring to estimate the number of radar targets likely to be bats. This will provide information to assess bat migration rates through the Project Area;
 - Ceilometer Observations: During the spring and fall conduct of the radar studies, the technician performing the radar studies will use a ceilometer to visually identify birds or bats in the immediate vicinity of the radar station. This will provide specific information on bat activity in the location of the radar station;
 - Acoustic Monitoring for Migrating Bats: During summer and fall seasons periods expected to have peak bat migration activity, approximately June 15 until October 31, 2008, acoustic detectors will be installed at ground level and at elevations above ground level to continuously detect and record possible bat echolocation calls nightly from sunset until sunrise.
 - Results will be analyzed to provide information on the number and species composition of bats migrating through the Project Area; and

- Mist netting: Mist netting on the island in key habitat locations to determine native resident species within the Project Area. Mist netting targeting breeding bats will be done on 4 nights in June 2008.
- Evaluation of Habitat Potential: Assessment of the Project Area for sites of potential bat habitat.

Impact Assessment

The DEIS will assess impacts including, but not limited to:

- Potential impact of Project operation on bat migration activities, considering observed species; numbers; flight patterns (including altitude); climatic conditions; regional geography; data from other studies (including mortality rates due to collisions at similar installations); turbine geometry, operating characteristics, and maximum tip height;
- Available habitat for endangered and threatened species of bats; and
- Temporary displacement or permanent loss of migrating and locally breeding species anticipated during construction and operation due to habitat loss, fragmentation, or degradation.

Mitigation

The DEIS will discuss potential mitigation measures that may include but are not limited to:

- Enhancement of habitat by installation of bat boxes or other measures; and
- Avoidance of habitat to the extent practicable.

3.5.5 Post-construction monitoring

The DEIS will describe a proposed post-construction monitoring program that will be a required condition of DEC permits.

3.5.6 Fish and Aquatic Species

Characterization

The DEIS will describe the fish, fisheries and other aquatic species of Lake Ontario, based on:

- Available data from published sources; and
- Field observations of the Aquatic Macrophyte, in particular the water starwort, for the locations where in-water construction is planned.

Impact Assessment

The DEIS will assess impacts, including but not limited to:

- Construction of the dock and related impacts, including impacts to fisheries;
- Use of lake water intake for drinking water and fire protection supply; and
- Use and future maintenance of dock facilities.

Mitigation

The DEIS will describe potential mitigation measures that may include:

- Avoidance of critical aquatic habitat;
- Alternative construction methods; and
- Avoidance of construction dates sensitive to fish habitat and spawning.

3.6 Visual Resources

Characterization

The DEIS will characterize the existing conditions in accordance with the NYSDEC Policy Guide, "Assessing and Mitigating Visual Impacts" (DEP-00-2), including:

- An inventory of statewide resources, including properties listed or eligible to be listed in the National or State Register of Historic Places;
- Other places in a category of aesthetic resources of statewide significance listed in the NYSDEC Policy Guide;

- A list of potentially sensitive receptors in the Project Viewshed, with brief descriptions and a map showing locations of these receptors. These will include:
 - Churches
 - Parks or recreation facilities
 - Schools
 - Hamlets
 - Main highway corridors
 - Shorelines
- A description of obstruction lighting required by the Federal Aviation Administration.

Impact Assessment

The DEIS will assess impacts by means including, but not limited to:

- An advanced 3-dimensional visualization model will be prepared using Arcview GIS software to prepare a “Zone of Visual Influence” map. This Viewshed map will be used to illustrate the areas in the Project Viewshed from which wind turbines could be visible. This map will consider the effects of topography, turbine height (blade at its highest point), existing vegetation, and turbine location, but it will conservatively address the effects of viewer angle, structures, and weather. Evaluation of visual impacts within a five-mile radius of the Project is consistent with the NYSDEC’s Policy “Assessing and Mitigating Visual Impacts” (DEP-00-2), dated July 31, 2000 and will also include analysis in accordance with standards as established by Section 14.09 of the New York Parks, Recreation and Historic Preservation Law. However, the DEC states that a larger radius may be appropriate for large-scale projects. For purposes of the DEIS, the Viewshed will initially be considered to be the cumulative area defined by the sum of individual viewsheds of fifteen-mile radii centered on each turbine. From the point where this radius then touches land, a one-half mile corridor inland is then considered as part of the viewshed.
- Visual simulations of ten (10) viewpoints selected to cover the range of typical views, viewpoints expected to have the most observers, and viewpoints considered to be historically or culturally sensitive as follows:

1. A simulation from the NYS land adjacent to the Galloo Island lighthouse
 2. Sackets Harbor Battlefield
 3. Seaway Trail along NYS route 3
 4. Association Island
 5. Stony Point Lighthouse
 6. Southwick Beach State Park
 7. Black Pond Wildlife Management Area
 8. Robert Wehle State Park (High Rocks)
 9. Point Peninsula (Wildlife Management Area preferred if accessible)
 10. Tibbetts Point Lighthouse
 11. Water view looking toward lighthouse (south of Galloo Shoal)
 12. Water view from Isthmus Island
 13. Water view from Fox/Grenadier Islands
 14. Water view from Calf Island spit
- The visual simulations shall be prepared by taking photographs with a digital camera with a lens setting equivalent to 50 mm. Position data (e.g. GPS data) shall be collected at the vantage point for each simulation so that wind turbines are accurately simulated in the photos. To ensure that the resulting simulations achieve a higher degree of accuracy, Upstate Power will model the terrain of the Project Viewshed.
 - The visual simulation analysis will discuss Project impacts, if any, based on the qualities that define the affected resource.
 - Line-of-sight (cross section) renderings will be prepared in order to illustrate the effects of topographic relief and distance on viewsheds.

Mitigation

The DEIS will assess potential mitigation measures that may include:

- Direct mitigation options as stated in NYSDEC Visual Policy including screening and re-location of Project components;
- Describe how mitigation determinations will be made at specific identified sensitive resources in accordance with the full menu of mitigation options in the NYSDEC Visual Policy;
- Describe mitigation offsets for any identified unavoidable impact on significant cultural resources. This discussion will include consideration of assisting the restoration efforts for the Galloo Island Lighthouse complex, a NRHP listed property. Other mitigations such as creation of a park on the island, reuse of temporary workers cottages at a state park and creation of an interpretive center for island history and green energy following construction may also be considered;
- Uniform design of wind turbines and towers. A neutral, low-reflectivity finish to minimize contrast all buildings associated with the Project. However, paint must be an approved color (off-white) required by FAA regulations; and
- Mandated FAA lighting at the lowest intensity required for pilot safety.

3.7 Archaeological and Historical Resources

Characterization

The DEIS will include:

- Results and documentation of a review of the Office of Parks, Recreation and Historic Preservation (OPRHP) online resources and the archeological site files maintained by OPRHP to indicate whether there are previously recorded archeological sites within the Project's Area of Potential Effect for archeology (APE);
- Documentation of consultation with OPRHP in accordance with Section 106 of the National Historic Preservation Act, including a discussion of procedures to resolve potential adverse effects, such as a Memorandum of Agreement (MOA).

- Results from research using the OPRHP Sphynx model and site files maintained by the New York State Museum; and
- Results of a consultation with OPRHP on the requirements and/or findings of a Phase 1A Cultural Resource Assessment will be presented in the DEIS. Any additional required studies or reports (e.g. Phase 1B Cultural Resource Assessment) prepared as the result of cultural resource investigations for the Project will be included as an appendix to the DEIS.

Impacts

The DEIS will describe possible impacts, including but not limited to:

- Construction activities that could potentially impact archaeological resources in areas identified as archeologically sensitive; and
- Indirect visual impacts on existing structures that are either listed on the National Register of Historic Places (NRHP) (i.e., the Galloo Island Lighthouse) or eligible for listing on the NRHP.

Mitigation

The DEIS will discuss potential mitigation measures that may include:

- Avoidance of areas identified in the Phase 1B study as containing significant archeological resources;
- Photo documentation and discussion of historic features/activities on the island that will likely be permanently disturbed as a result of project construction (e.g., cedar stump field, fences;
- In the event a previously unknown significant archeological resource is discovered during construction, all work in the area will cease until representatives from the NYS OPRHP and a cultural resources company can be consulted;
- The wind turbines and towers will be uniform in design and all buildings associated with the Project will have a neutral, low-reflectivity finish to minimize contrast. However, paint must be an approved color (off-white) required by FAA regulations; and

- Mandated FAA lighting will be the lowest intensity required for pilot safety and as consistent with requirements for avian impact.

3.8 Socioeconomics

Characterization

The DEIS will describe the existing economic conditions and resources, including:

- School districts, police, fire, and emergency service providers serving the Project Area;
- Town of Hounsfield tax base information;
- State and local tax or other financial incentives for development of wind farms;
- Proposed PILOT agreement between the Town of Hounsfield and the applicant including any public funding and applicable tax credits;
- Typical PILOT agreements in other New York communities with wind farm developments;
- Operational requirements for septic, sewer, lighting and solid waste disposal services; and
- Local demographics.

Impacts

The DEIS will describe socioeconomic impacts, including:

- Economic impacts from the Project during and after construction;
- Operational requirements for septic, sewer, lighting and solid waste disposal services;
- Temporary and permanent employment resulting from the Project;
- Impacts to local employment, housing, tourism, boating and fishing during construction.
- Impacts to navigation during and after construction;

- Impacts on electricity rates and reliability in the area;
- Impact of tax subsidies and concessions (both State and local);
- Identification of all affected fire departments, the amount of tax revenue likely to be collected by the fire departments from the Project, and possible impacts of these taxes on the fire department budgets and taxing requirements;
- Identification of the school districts affected, the revenue expected to be received by school districts as a result of any Payment In Lieu of Taxes ("PILOT") agreements entered into by the Project, and possible impacts of any such payments on the school budget(s) and the schools taxing requirements;
- The revenue expected to be received by Jefferson County as a result of any PILOT agreements entered into by the Project, and the impact of any such payments on the County budget and the County's taxing requirements;
- The revenue expected to be received by the Town of Hounsfield as a result of any PILOT and host community agreements entered into by the Project, and the impact of any such payments on the Town of Hounsfield budget and the town's taxing requirements; and
- Services that the Project may require of the fire departments, school districts, county, and town.

Mitigation

The DEIS will discuss mitigation strategies, if needed, including:

- Compensation for any net economic losses;
- Opportunities for local education and tourism based on green energy; and
- Other mitigation as required.

3.9 Public Safety

Characterization

The DEIS will describe and evaluate the information available from published professional sources, with emphasis on information from the following sources: New York State government agencies; peer reviewed professional journals; actual field studies in the Project Area and from similar existing installations in New York State addressing:

- Fire suppression methods to be used onsite and associated cleanup protocol; and
- Potential hazards to local aviation. The location of any actively used air-fields and aircraft landing strips should be mapped in the DEIS. As will the Project's proximity to Watertown International Airport.

Due to the remote location and lack of permanent residences within 8 miles, ice throw/shedding and tower collapse are not anticipated to be a significant environmental impact. Therefore, no studies will be necessary.

An evaluation of the St. Lawrence Seaway Corporation to establish their port procedures thru the Seaway will be done. These procedures will be presented in the DEIS and potential additional project specific requirements will be identified.

Impact Assessment

The DEIS will assess potential impacts from the items listed above. However, due to the remote location impacts are expected to be minimal.

Mitigation

The DEIS will discuss potential mitigation measures that may include:

- Adherence to Federal, State and local codes, including construction all facilities to applicable code requirements;
- Safety features and certification of the Project wind turbines, including maximum wind speeds that the turbines are designed to sustain;
- Substation site security measures, including fence and gate specification, lighting design and related details;

- Lightning detection and protection system for wind turbine;
- Establishment of appropriate tower lighting and distances from active airfields and aircraft landing strips per FAA guidelines; and
- Development of an emergency response plan which will include pre-construction meetings with local emergency providers.

3.10 Microwave Beam Interference

Characterization

The DEIS will identify the microwave beams that cross the Project Area. The DEIS will include a map and other information necessary to show existing microwave paths and demonstrate that these microwave paths will not be obstructed by wind turbines or other Project components.

Impacts

Wind turbines have the potential to interfere with microwave signals by obstructing line-of-sight microwave transmitters.

Mitigation

The DEIS will discuss potential mitigation measures that may include:

- Using rotor blades constructed of fiberglass/carbon material and asynchronous (brushless) generators to reduce the potential for electromagnetic interference; and
- Any point-to-point microwave transmission path interference would be resolved as may be required by FCC rules and regulations.

3.11 Blasting Issues

Characterization

The DEIS will describe:

- Geologic conditions on the site and how they relate to construction of the Electrical Collection System, tower foundations and dock facilities.

Impacts

The DEIS will discuss impacts related to blasting, including but not limited to:

- Impacts to ecological areas on the island; and
- Impacts to groundwater flow.

Mitigation

The DEIS will address potential mitigation measures that may include:

- The Project will adhere to all applicable regulations to blasting including New York State Department of Labor (NYSDOL) explosive handling regulations (12 NYCRR 39) and NYSDEC blasting/mining regulations and as outlined in the Project Blasting Plan that will be provided. A blasting plan will be included as an Appendix to the DEIS.

3.12 Decommissioning

Characterization

The DEIS will include:

- The expected operational lifetime of the Project; and
- A discussion of potential scenarios in which the Project system or individual turbines would cease operations prior to the expected operational lifetime.

Impacts

The DEIS will discuss impacts of decommissioning, including but not limited to aesthetic impacts, erosion and sedimentation impacts and public safety impacts.

Mitigation

The DEIS will discuss mitigation measures, including but not limited to:

- The DEIS will attach a proposed decommissioning plan which will include the following elements;

- Partial or complete removal of wind turbines to ground level (if in place at time of abandonment);
- Removal of construction materials and debris and re-grading and re-seeding of the leased parcels in accordance with an approved “Decommissioning and Restoration Plan”;
- Restoration of disturbed property restored to original conditions per approved decommissioning and restoration plan; and
- A decommissioning bond or fund established prior to construction in order to decommission the Project and restore the Project site; this bond or fund will be held by the Town Board or its successor agency.

3.13 Mandated FAA Lighting

Characterization

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

Impact Assessment

- Since the Project consists of multiple monopole structures over 200 feet in height, lighting per FAA requirements will be integrated and a visual impact may result; and
- Potential other impacts related to required lighting including air, navigation, wildlife, and aesthetic/visual resources.

Mitigation

The DEIS will evaluate potential mitigation measures that may include:

- Following all requirements specified in the FAA’s acknowledgment letter(s), including lighting specifications in accordance with the FAA Advisory Circular AC 70/7460-1; and
- Install red pulsating L-864 lights on selected wind turbines to minimize the attraction to birds.

3.14 AIR RESOURCES

Characterization

Emissions of temporary operation of site or station power for construction phase will be characterized.

4.0 ALTERNATIVES

Alternatives to be discussed in the DEIS include:

- No Action
- Alternate turbines under consideration.
- Alternate Project locations: The DEIS will not evaluate alternative project locations. The Applicant is a private project sponsor and does not own or have an option on other parcels that could serve as a Project site 6NYCRR § 617.9 (b)(5)(v). Moreover the Project is proposed for a unique site. This proposed Project is located in wind conditions similar to offshore locations but will be located on land, limiting impacts to submerged lands. The project is also situated remotely from local communities, greatly reducing the impacts to residents. No other project site in New York State can replicate these unique features.
- Project layout maximizing the land available. A layout will be analyzed that places the maximum number of turbines sited to achieve the maximum possible output for the wind resources on the island. This layout would be assessed for impacts to wetlands and other potential environmental concerns, including ecological linkages between habitat resources present on the island.
- Fewer turbines. This analysis will evaluate specifically identified turbine reduction alternatives, which would avoid specific impacts identified in the DEIS such as impacts on wetlands, flora and fauna. For any alternative considered, the analysis will include an evaluation assessing and balancing the benefits and impacts of eliminating a turbine or turbines.
- Lower turbine height. Impacts from lower, less efficient turbines will be assessed, with special attention to impacts on: visual resources; habitat/wetlands; avian/bats; economics; efficient use of wind resource in relation to the proposed Project's isolated location; and loss of renewable energy to the public.

- Alternate energy sources. The analysis will not evaluate other types of alternate energy projects for the site. The Applicant's expertise is limited to wind development and it would not have the objective or capability to develop some other form of alternate energy project on this site.
- No Impact Alternative. The viability of a proposed Project that is designed to avoid all impacts to wetlands, sensitive habitat and forested areas will be evaluated.

Information on the potential beneficial and adverse environmental and economic impacts associated with each option will be presented. This section will provide a clear and thorough explanation of the alternatives and why the recommended alternative is the most appropriate choice.

5.0 COASTAL ZONE CONSISTENCY

The DEIS will summarize a Coastal Zone Consistency Review of the Project.

6.0 GROWTH INDUCING ASPECTS

The DEIS will identify and describe the potential growth inducing impacts of the Proposed Action with respect to improvements made to public utilities.

7.0 CUMULATIVE IMPACTS

The DEIS will identify and describe the potential cumulative impacts from the Proposed Action in relation to other proposed developments in the Hounsfield/Henderson shoreline area. Additionally, the cumulative impacts of the Project and its related transmission line will also be assessed. In particular the following issues will be discussed in relation to the transmission line and Proposed Project:

7.1 Other Developments

This section will discuss other developments in the region including the proposed Cape Vincent Wind Farm, the proposed St. Lawrence Wind Power Project, the proposed Horse Creek-Clayton Wind Project, Wolfe Island Wind Power Project, the proposed Roaring Brook Wind Project, and the operational Maple Ridge Wind Power Project. The cumulative impact of these projects will be limited to avian and bat issues. Visual impacts of listed projects (Roaring Brook and Maple Ridge) on the linear Seaway Trail Scenic Byway will be assessed. Publicly available data will be used to analyze the potential cumulative impact of the multiple wind farm developments.

7.2 Transmission Line

The transmission line is not subject to SEQRA review as it is administered under the Article VII process by the PSC. Nevertheless, impacts that may occur from the construction and operation of the associated transmission line required to operate the Project will be provided through the attachment of the Article VII application for the transmission line as an appendix to the DEIS. This appendix will address areas of environmental concern analyzed in the DEIS and will focus on potential impacts such as wetlands, avian and bats and terrestrial habitat.

The cumulative impacts as identified in the appendix will be summarized in this section of the DEIS.

8.0 UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

The DEIS will identify and discuss any adverse environmental impact that cannot be avoided or adequately mitigated if the Proposed Project is constructed. The discussion will include an identification of both significant and moderate adverse impacts as applicable.

9.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The DEIS will identify the extent to which the Proposed Action will cause a loss of environmental resources, both in the immediate future and in the long-term.

10.0 APPENDICES TO ACCOMPANY DEIS

The following reports will be included as Appendices to the DEIS:

- Project Layouts
- Project Component “Typical” Drawings
- Wind Turbine Information
- SHPO Studies
- Microwave Analysis Report
- Visual Impact Assessment
- Avian Study Reports
- Bat Study Reports
- Wetland Map(s) (delineations)
- Agency Correspondence
- Article VII Filing – Environmental Sections

- Blasting Plan
- Sediment and Erosion Control Plan
- Environmental Monitoring Plan
- Emergency Response Plan
- Operations and Management Plan
- Decommissioning Plan
- Draft Stormwater Pollution Prevention Plan
- Invasive Species Plan
- Coastal Zone Management Consistency Form