

Final Scoping Document

For the preparation of a Draft Environmental Impact Statement

Crown City Wind Energy Project

Towns of Cortlandville, Homer, Solon, and Truxton, Cortland County
New York

September 13, 2012
Revised

Lead Agency: Cortland County Legislature
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Introduction

Project Description and Area

Air Energy TCI Inc. (the Project Sponsor) is proposing a wind-powered, electric generating project on approximately 9,500 acres of leased land located in the Towns of Cortlandville, Homer, Solon, and Truxton, Cortland County, New York. The Crown City Wind Energy Project (Project) will include up to 48 wind turbines, with a generating capacity of up to 80 megawatt (MW). Other Project components will include gravel access roads, buried electrical gathering lines between the wind turbines, a collection substation, a 115 kilovolt (kV) interconnection line, an interconnection substation adjacent to an existing 115 kV transmission line, an operations and maintenance (O&M) building and associated storage yard, and one permanent meteorological tower. The Project is located east of Interstate 81, bordered to the west-northwest by State Route 13, to the south by State Route 41, to the northeast by Cheningo Creek, and to the east by the Solon-Taylor town line. The land use includes agriculture, forest, and small areas of successional old field, brush, hedgerows, and wetlands. Farms and rural residences occur along the public roads within the Project Area.

SEQR Process

The basic purpose of the State Environmental Quality Review Act (SEQR) is to incorporate the consideration of environmental factors into the existing planning, review, and decision-making processes of state, regional, and local government agencies at the earliest possible time. To accomplish this goal, SEQR requires a determination of whether a proposed action may have a significant impact on the environment, and if it is determined that the action may have a significant adverse impact, prepare or request an Environmental Impact Statement (EIS). It was the intention of the State Legislature that protection and enhancement of the environment and human and community resources should be given appropriate weight with social and economic considerations, and that those factors be considered together in reaching decisions on proposed actions. It is not the intention of SEQR that environmental factors be the sole consideration in decision-making.

On November 14, 2008 an Environmental Assessment Form (EAF) was submitted to the Cortland County Legislature,. At the December 8th, 2011 meeting of the Legislature's Ag, Planning, and Environment Committee, a potential lease of Cortland County landfill property was submitted by TCI, which requires discretionary approval, and so could be construed to initiate the SEQR process for the subject action. However, this was after the following occurred. On December 19, 2008, the Cortland County Planning Department on behalf of the Legislature, forwarded a declaration of intent to become SEQR Lead Agency, along with a copy of the EAF document, to potentially interested/involved SEQR agencies. No agency objected to the Cortland County Legislature assuming the role of Lead Agency. An updated project description and map of project facilities was provided to the Lead Agency on June 18, 2012. The Cortland County Legislature, as Lead Agency, subsequently issued a Positive Declaration on June 28, 2012 requiring the preparation of a Draft Environmental Impact Statement (DEIS). Therefore,

pursuant to New York State Environmental Conservation Law Article 8, SEQR; and Part 617 of Title 6 of the New York Codes Rules and Regulations (NYCRR), and the adoption of a positive declaration by the Lead Agency, a DEIS for the proposed Crown City Wind Energy Project will be prepared.

The SEQR process for the Project has included, or is anticipated to include, the following:

- Lead Agency Determination (Cortland County Legislature).
- Preparation of a Full Environmental Assessment Form.
- Issuance of a Positive Declaration by Lead Agency.
- Preparation of a Draft Scoping Document.
- Public Scoping Meeting30-day public scoping comment period.

- Issuance of a Final Scoping Document.
- Preparation of the DEIS.
- Lead Agency (Cortland County Legislature) determines that the DEIS is adequate for public review and publishes in a local newspaper a notice seeking public comment and of public hearing.
- Public hearing on DEIS (must be held at least 14 days after public notice is published).
- A minimum 30-day public comment period.
- Revision of the DEIS as necessary to address substantive/relevant comments received.
- Preparation of the Final EIS (FEIS).
- Filing of a notice of completion of FEIS.
- 10-day consideration period.
- Issuance of a Findings Statement by the Lead Agency.
- Issuance of Findings Statements by involved agencies.

Purpose of SEQR Scoping Process

The primary goals of Scoping, which is an optional process under SEQR, are to focus the EIS on potentially significant adverse impacts and to eliminate consideration of those impacts that are irrelevant or non-significant.

The Draft Scoping document was prepared by the Project Sponsor as a summary of the content that will appear in the DEIS for the Project Sponsor's proposed Crown City Wind Energy Project. It was prepared in accordance with SEQR Regulations (6 NYCRR Part 617), and was released by the County Legislature's Agriculture and Planning Committee for public and agency review and comment on July 3, 2012. A public scoping meeting was held by the Cortland County Legislature on July 23, and the comment period ended on August 3, 2012.

A total of 12 individuals provided oral comments for the record during the July 23 public scoping meeting, and a total of 35 written comments were received during the 30-day comment period. Of the 35 written comments received, 20 written comments expressed explicit support for the Project. An audio file of the July 23 scoping meeting, and pdf copies of the written comments, can be accessed through the Cortland County Legislature/Agriculture & Planning Committee's website at the following location: <http://www.cortland-co.org/Legislature/AG%20&%20Planning.htm>

Many comments addressed issues already identified in the Draft Scoping Document, and all relevant, substantive comments that were not already identified in the Draft Scoping Document have been incorporated herein.

This Final Scoping Document identifies the significant environmental conditions and resources that may be affected by the proposed Crown City Wind Energy Project, and defines the extent and quality of the information necessary to address those issues. The content of this scoping document is based on the requirements of the SEQR Regulations - 6 NYCRR Part 617.8 and also incorporates the DEIS content requirements stated in 6 NYCRR Part 617.9. It reflects the Lead Agency's analysis of potential impacts and incorporates the relevant public comments (both oral and written) provided on the Draft Scoping Document.

Draft DEIS Scope and Content for the Proposed Crown City Wind Energy Project

The DEIS will include all elements required by 6 NYCRR 617.9. The following sections will be included in the DEIS.

- i. **DEIS Cover Sheet** The draft and final EISs will be preceded by a cover sheet stating: whether it is a draft or final EIS; the name or descriptive title of the action; the location (county and town(s), village or city) and street address, if applicable, of the action; the name and address of the lead agency and the name and telephone number of a person at the agency who can provide further information; the names of individuals

or organizations that prepared any portion of the statement; the date of its acceptance by the lead agency; and in the case of a draft EIS, the date by which comments must be submitted.

- ii. **DEIS Table of Contents** including listings of tables, figures, maps, appendices/attachments and any items that may be submitted under separate cover (and identified as such).

1.0 Executive Summary

The executive summary will include a brief description of the proposed action and a listing of potential environmental impacts and proposed mitigation measures. A summary will be provided of the approvals and permits required, and the alternatives to the proposed action that are evaluated in the DEIS.

2.0 Description of the Proposed Action

This section of the DEIS will provide a comprehensive description of the site in a regional and local context and provide a detailed discussion of the proposed action.

2.1 Introduction

This subsection will:

Identify the Project Sponsor.

Provide a general description of the Project location, components, and layout.

2.2 Project Purpose, Need, and Benefit

This subsection will:

Provide a background and history of the Project, and a statement of the objectives of the Project Sponsor.

Describe the public need for the Project, including a brief overview of the environmental, social and/or economic benefits anticipated due to the proposed action.

Describe the wind energy market in New York State.

Describe New York State policies and goals regarding wind energy.

Describe the capacity and reserves of the New York Independent Service Operator. Describe whether the NY ISO has an actual need for wind-generated electricity from this Project.

Describe the seasonal and daily availability of electricity from the Project. Describe how electricity from the Project will be supplied when the wind isn't blowing and describe what will happen to surplus electricity when it is not needed. Describe how much wind electricity from the Project will be counted as 'reserve' and will never be used.

Describe whether this Project will produce the phenomenon of "skitter", where the wind-generated electricity is so variable that it routinely changes its output 5% or more at every five-minute interval and occasionally widely alters what it delivers in a very short time. If so, document how this can be handled by the NY ISO.

The DEIS will describe whether or not the Project Sponsor will be requesting the right to eminent domain.

Describe the competition for electrical generation sales by existing coal, hydroelectric, natural gas, nuclear power and petroleum suppliers in New York State.

2.3 Project Cost and Funding

This subsection will:

Describe the Project Sponsor's experience with similar projects.

Describe the estimated cost and responsibility of developing, permitting, and constructing the Project.

The DEIS will describe all subsidies from all federal, state, local and private sources, including but not limited to tax incentives, production tax credits, accelerated depreciation factors, NYSERDA grants, exemptions from property tax, mandated purchases, additional markets for green credits, and legal rights to resell the project quickly.

2.4 General Project Location

This subsection will:

Define the size, geographic boundaries, and physiographic characteristics of the Project Area.

Depict the regional and local context of the Project Area, including properties owned or under lease by the Project Sponsor. This will allow for a clear understanding of those lands/properties participating in the Project versus those properties not participating in the Project.

Discuss the dominant land use within and adjacent to the Project Area. Identify any state forestlands or other state resources in the Project vicinity.

Provide maps, graphics and plans showing the location of existing facilities and features including surface waters, roads, buildings, parklands, electrical transmission and distribution improvements, gas transmission improvements, other infrastructure, including planned Emergency Communications towers, relative to the locations proposed for Project components such as the turbines, access roads, electrical interconnect system, interconnection line, substation, meteorological (met.) tower, operations and maintenance (O&M) facilities, storage/laydown and parking areas and any associated lands, easements, rights-of-ways and other project improvements. The maps will be at sufficient scale and accuracy and will include sufficient detail to illustrate all project components and to allow residents and the public to identify parcels as well as the proposed development of project components adjacent or near to specific properties. Unoccupied as well as occupied residences and other buildings within the project area will be depicted.

Describe the number of participating landowners and the general terms and conditions of lease/easement agreements with these landowners.

Describe concept plans for any related future phases or clarify that the proposed project is not the first in a series of projects or phases.

2.5 Project Layout and Components

This subsection will:

Describe the size, generating capacity and layout of the proposed Project.

Describe the Project components (e.g., turbines and their size and capacity, access roads, improvements to existing roads including modifications to the road surface, section and/or geometry, below and/or above ground electrical collection lines, collection substation, interconnection station, O&M facility) and indicate which are permanent parts of the Project and which are temporary (i.e., for construction purposes only), such as temporary construction staging area(s). Identify the proposed setback distances of the turbines and interconnection station from roads, residences, existing electrical transmission facilities, particularly those designed to operate at 100 kV or more, and buried gas infrastructure.

Illustrate the proposed wind turbines, substation, O&M building, and other visible components of the Project. Provide dimensions and/or to-scale drawings.

Identify the substation location and siting considerations taken into account in selecting a site for the substation including soil suitability and bedrock limitations related to constructability and facility grounding and protection systems. Discuss the potential for possible interference with other electric and communication systems given the location and siting considerations taken into account. Also describe the preliminary substation design and site layout including grading, cut and fill, drainage, accessibility and preliminary access road design criteria related to slope and alignment limitations.

Identify as part of the project any upgrades to existing transmission facilities that may be necessary to accommodate the interconnection and electricity generated by the Project. Also identify as part of the project the anticipated communication system required to rely information regarding Project operation with the existing utility.

Discuss the relationship of the Project Area to wetland areas, streams courses, residential areas, schools, parklands, historic properties, or any other recognized or protected natural or man-made features.

2.6 Project Construction

This subsection will:

Describe proposed off-site improvements (e.g., to town roads), if any, that will be necessary to build and operate the Project.

Describe construction of the proposed Project, including anticipated limits of disturbance, construction schedule/duration, anticipated construction employment, construction sequencing, and routing of construction traffic along local roads. To the extent construction activities have the potential to impact local resources of environmental concern (e.g., surface waters, groundwater), such impacts will be specifically addressed in the respective portion of Section 3.0 of the DEIS.

Provide a summary description of construction activities including clearing and grubbing, treatment of natural products to be removed during construction (e.g. removal of brush, disposal of cut material, etc.), civil work (roads, foundations and underground cable), tower/turbine installation, and site restoration. Identify potential sources and quantities of construction materials to be obtained from local sources (concrete, gravel, etc.).

Describe methods to install underground interconnection cables, especially where wetlands or streams will be crossed, including discussion of how the electrical cables will be protected from rocks, and how will burial be accomplished when bedrock is closer to the surface than the needed level of cable deposition.

Include a summary of the area or number of acres to be disturbed by construction of various project components including turbines, collection system, substation and related facilities, access roads, and so on. Also included will be a summary of the extent to which the project would convert land from the present use to another, for example, from agricultural use to turbine site, access road, substation, and so on.

Provide details of temporary road construction activities such as stock piling, use of geotextile, regrading and restoration.

Describe any safeguards to be taken to protect local citizens from any construction-related hazards.

Discuss the results of utility interconnection study and reliability studies conducted for the Project.

Discuss the need for a concrete batch plant and consequent reduction in use of roads. The location of any such plant and sources of sand and gravel will be identified.

The DEIS will delineate the expected number and size of truck loads of materials to be used for the full project, including but not limited to sand, gravel, cement, concrete, stone, dirt, turbine components, substation components, cranes, etc.

The DEIS will describe the plan for proper recycling of all recyclable materials that will be deemed waste products derived from the Project.

Invasive Species Management and Control Plan: An acceptable invasive species plan must detail survey methods to identify currently existing invasive species listed in the DEC Interim List in the project area so that these areas can be avoided when possible and proper measures can be taken when they cannot. The plan must specify how imported fill will be certified to be free of invasive species, how fill leaving the site will be certified to be free of invasive species, and how fill within the site will either be free of invasives or only used within the area infested with the same invasive species. The plan must also address how site grading and erosion and sediment control will work together to prevent invasions. It should also address cleaning procedures for removing invasive species from equipment, preferably with a powerwasher and personnel, location of designated equipment cleaning stations, location of off-site disposal (if the material is not rendered incapable of growth or reproduction) which must be either a landfill-incinerator or State-approved disposal facility. The intent is that equipment should arrive at the site clean and leave clean. Equipment and clothing-cleaning stations must be constructed so that invasive species seeds and other viable plant parts cannot escape in runoff or through other means. The plan should describe the Best Management Practices or procedures that will be implemented to ensure that project activities do not result in introduction or spread of invasive species, especially in or near regulated areas of special interest to Natural Resources staff such as areas containing protected species or habitats within the project area. The plan should also provide measures for educating workers about IS and how to prevent their spread, identify work areas which will trigger cleaning activities (such as prior to using mats in streams and wetland and wetland adjacent areas) and identify methods to prevent and control the transport of IS as well as how to clean equipment and clothing using acceptable methods. The plan must list all planting and seeding materials to be used and specify mulch free of invasive species. The plan should also detail post-construction monitoring and survey approaches, preferably for at least 5 years which would ensure that the objective of no net increase in IS was accomplished. If areal coverage of invasive species in the ROW project area increases over the baseline survey level remedial action should be considered, with consultation with DEC and USACE. If the goals of the invasive species control plan are not met within five years post construction, a revised control plan containing additional control actions for an additional monitoring term will be submitted.

Discuss re-grading and stabilization of temporary impacts to wetlands and streams, restoration of disturbed habitat, including re-planting of suitable species in wetlands, adjacent areas and streams, wetland mitigation project construction, stabilization of disturbed areas subject to the SPDES Stormwater General Permit, removal and proper

disposal of temporary road materials, and re-grading of soil in agricultural and forested areas in accordance with NYS Department of Agriculture and Markets guidelines or other Best Management Practices.

Include a plan to conduct environmental monitoring during Project construction and restoration to assure compliance with all permit conditions. Plan elements will include: Coordination of environmental monitoring activities by a qualified monitor, consultation with appropriate agencies (e.g., NYS Department of Agriculture and Markets) documentation of restoration/mitigation activities as they are implemented, and preparation of regular reports to be submitted to appropriate involved and interested agencies.

As part of the decommissioning plan, the DEIS will describe any hazardous or significant byproducts associated with the wind turbines, such as neodymium magnets and radiation hazards, and will address how these would be handled and disposed of.

The DEIS will describe how every proposed construction action will follow the "best practice" for that particular action. Any action which does not follow industry "best practices" will be identified. An action will be defined as not a "best practice" if there is some other known action for the same purpose which provides greater safety to the inhabitants of the Project area.

2.7 Operation and Maintenance

This subsection will:

Describe the intended long-term ownership, operation, inspection, and maintenance requirements of all Project components/improvements, both on-site and off-site, along with the liability of the Project Sponsor.

Provide information on the anticipated annual rate of power generation, routine maintenance requirements, long-term employment, lease/easement arrangements with landowners, effect on local electric rates, and useful life of the Project.

Anticipated annual rate of power generation figures must be backed up by a summary of the Project Sponsor's wind yield analysis and any other credible evidence demonstrating that the Project Sponsor's estimates of potential power production are reliable.

The DEIS will describe its maintenance responsibilities, including but not limited to the cost of possible damage from hydraulic fluid spills, and the insurance coverage for turbines and their blades after the manufacturer's warranty expires. The amount of insurance coverage will be described.

Describe the role that environmental management will play in operation and maintenance of the project including environmental practices, requirements and procedures that will be implemented to assess and minimize environmental impacts during major repairs, emergencies and/or decommissioning.

The DEIS will describe how every proposed operation and maintenance action will follow the "best practice" for that particular action. Any action which does not follow industry "best practices" will be identified. An action will be defined as not a "best practice" if there is some other known action for the same purpose which provides greater safety to the inhabitants of the Project area.

2.8 Decommissioning and Closure Plans

This subsection will:

Discuss the anticipated form of security that will be available to pay for decommissioning of the Project, and discuss the associated restoration of the Project Area upon decommissioning.

Describe the requirements and provisions of a Decommissioning Plan to be established for the Project.

Describe what will happen should the sponsor or operator become bankrupt or otherwise unable to meet costs, including in the case of serious accidents, such as the collapse of a wind turbine.

2.9 Required Approvals and Applicable Regulatory Programs

This subsection will:

List the governmental entities having approval (or anticipated to have approval based on pending regulations) over the Project, including the nature of their jurisdiction and the approvals required from each entity.

Discuss local ordinances that govern the development of wind power, including setback and permit requirements. Any state or federal approvals required should be discussed including but not limited to compliance with U.S. Army Corps of Engineers (USACOE) and NYSDEC wetland and stream permit requirements, and NYS Department of Transportation (NYSDOT) approvals. The DEIS will note whether or not compliance with the New York State Historic Preservation Act of 1980, Section 14.09 and Section 106 of the National Historic Preservation Act will be necessary.

Include a definitive statement that the project sponsor will work in close cooperation with National Grid engineers in the site selection of the interconnect facilities, and with the Dominion Gas pipeline operator.

The DEIS will describe all setback distance definitions. The DEIS will describe whether the setback distance are consistent so that landowners don't lose the right to build on their property area in the future.

2.10 Public and Agency Involvement

This subsection will:

Discuss the Project Sponsor's efforts to keep the public informed on the Project, as well as the coordination efforts between Town and County agencies.

Discuss the SEQRA Process for the Project.

3.0 Existing Conditions, Potential Impacts and Mitigation Measures

This section of the DEIS will identify the existing environmental conditions, potential impacts of the proposed action, and proposed mitigation measures, as appropriate, for each of the major issues identified in this Scoping Document. The analysis of impacts will include all Project components including individual turbine sites, access roads, substation, and electrical collection system. The format or organization of this section will include the following subsection headings for each topic discussed:

Existing Conditions
Potential Impacts
Mitigation Measures

This format provides for a more meaningful presentation of the environmental issues in a reader-friendly form and will allow the reader to focus on individual impact issues.

The text of this section will be supplemented with maps, graphics, agency correspondence, Geographic Information System (GIS) data, and completed support studies. Both temporary (construction-related) and permanent (operational) impacts will be addressed.

The "Constraints" map shall be updated and made part of the DEIS.

All impacts of the turbines and infrastructure on the existing and future uses and/or expansion of the landfill shall be addressed in the DEIS.

The Project Sponsor will provide a high level summary of their wind yield analysis, verified by a third party, as part of the justification for undertaking the project.

3.1 Geology, Soils, and Topography

This subsection will evaluate surface and subsurface soils, bedrock conditions, and agricultural resources within the Project Area. Constraints imposed by existing soils, geology and topographic conditions will be evaluated. Soil types will be identified and soil characteristics relating to soil texture, soil-bearing capacity, depth to water table, hydric and non-hydric soils will be evaluated.

Agricultural land use and Agricultural Districts in the Project Area will be mapped and described. Impacts to active farmland will be quantified (temporary and permanent). Any prime agricultural soils within the Project Area will be identified. Measures and steps taken during construction to ensure compliance with NYS Department of Agriculture and Markets (NYS DAM) agricultural protection guidelines will be described and will include an analysis of the anticipated post-construction/restoration productivity and drainage characteristics.

Protocol will be outlined for the following:

- Topsoil protection
- Minimizing losses of active farmland
- Restoration of agricultural land

A description of prominent and/or unique features including large boulders, ledges, and rock outcroppings will be provided. Impacts to surface and subsurface soils and bedrock will be addressed including total area of disturbance (temporary and permanent), potential sediment and erosion, disturbance of steep slopes, blasting, and other impacts to shallow bedrock. Potential limitations such as slopes/grading, depth to bedrock, depth to water table, and the need for permanent drainage features (if any), at the collection substation site and interconnection station site will be addressed. Potential impacts to the Cortland County landfill will also be addressed. If blasting is anticipated, a general blasting plan will be included describing blasting operations and potential impacts to adjacent above and below grade structures. This plan will also identify applicable regulations pertaining to blasting. The DEIS will be as specific regarding the potential for blasting and identification of sites at which blasting is a possibility. If blasting remains a possibility throughout the entire extent of the project, the DEIS will state this explicitly.

The DEIS will include a work plan for conducting a comprehensive analysis of the fractured shale and other underground features in the Project area. This described study will be sufficient to provide the information required to set adequate distances from water sources needing pre-blasting water sampling and testing to establish baseline quality.

Mitigation for impacts will be presented, including proposed mitigation for blasting (if anticipated), discussion of the measures anticipated to be included in the Stormwater Pollution Prevention Plan (SWPPP) and associated drainage analysis and erosion and sediment control plan prepared in accordance with the State Discharge Elimination System

(SPDES) General Permit, and an Agriculture Mitigation Plan to protect and restore agricultural soils in accordance with NYS DAM guidelines.

3.2 Water Resources

Based on existing data, and site-specific review, this subsection will describe groundwater resources within the Project Area, including depth to groundwater, direction and gradient of groundwater flow, known aquifers including limits and permeability, and a map and description of existing/known water supply wells/springs. It also will evaluate the potential for impacts to groundwater resources that may be caused by installation of subsurface facilities, including tower foundations and buried electrical lines (e.g. blasting, sedimentation, stormwater runoff, chemical spills, etc), along with proposed means of avoiding or mitigating such impacts. The evaluation of potential groundwater and water supply effects from blasting and/or excavation will take into account the prevalence of fractured shale within the project area.

Potential groundwater impacts resulting from disturbance near the Cortland County Landfill due to Project construction or operation will also be addressed, along with proposed means of avoiding such impacts.

The DEIS will describe the action that will be taken if shallow groundwater is encountered during excavation for construction, and what action will be taken to protect the environment (and existing wells) during dewatering. The DEIS will discuss protocols to resolve complaints.

All surface waters within the Project Area, including wetlands, streams, rivers, lakes, and ponds, and their state and federal classification will be located and described. Available mapping will be utilized to illustrate where state or federally-regulated wetlands and streams occur within the Project Area. This subsection will describe the results of any on-site surveys undertaken to inventory and identify the boundaries of state and federal jurisdictional wetlands and streams occurring within the Project Area.

This subsection will identify anticipated impacts to NYS DEC-regulated wetlands or regulated adjacent areas as well as anticipated impacts to any wetland areas under the jurisdiction of the U.S. Army Corp of Engineers and how these are related to specific aspects and details of the proposed project layout. The DEIS will identify the anticipated amount of wetland impacts and how the project would avoid or minimize these. The DEIS will also identify and discuss compensatory mitigation being considered in association with anticipated unavoidable impacts and consistency with DEC wetland mitigation guidelines (see DEC's publication entitled Freshwater Wetlands Regulation Guidelines on Compensatory Mitigation).

This subsection will identify the location and extent of all streams, including DEC regulated streams, within the project site and identify the need for stream crossings and potential for stream disturbances. This section will also identify the associated need for any Article 15 stream disturbance permit(s).

This subsection will also include a discussion on the potential for identified water resources to meet the New York State definition of "navigable".

The DEIS will include a wetland and stream inventory report, which will provide detailed mapping of all identified wetland and stream resources. A formal delineation report will be included in the FEIS.

An assessment of potential impacts to surface water resources resulting from installation of all Project components, and Project operation, will be described based on the on-site wetland/stream inventory, along with proposed measures to avoid, minimize and/or mitigate these impacts. Potential impacts described and reviewed in this section will include water quality effects of storm water runoff on wetlands and streams located in the vicinity of wind turbines and down slope from construction sites and access roads as well as efforts that will be undertaken in accordance

with NYS DEC standards to avoid, minimize or mitigate potential effects to wetlands and streams. Necessary state and federal permits will be identified and described (e.g., Article 15 and Article 24 of the Environmental Conservation Law, Section 401 and 404 of the Clean Water Act).

Mitigation to offset permitted temporary and permanent impacts to wetlands, if necessary, will be described in the DEIS. Detailed mitigation plans, if necessary, will be developed in consultation with NYSDEC and USACOE during state and federal permitting processes and will be described in the Final SEQR EIS. Mitigation activities will be required to be conducted concurrently with other construction activities, not after other construction activities have been completed.

Finally, the evaluation will also consider future recurrences of "temporary" wetland impacts during the de-commissioning process, or during a major repair operation, such as large trucks and cranes that may again need to access all or portions of the Project Site, permanent roads may need to be temporarily widened or vegetation removed.

FEMA-regulated floodplain areas will be identified, and an assessment of potential Project-related impacts to floodplains, if any, will be provided.

The impact of the proposed action on storm-water management within the Project Area will be analyzed. This subsection also will describe the proposed stormwater management plan or compliance with state regulations pertaining to such a plan, including the related erosion control plan and a spill prevention and control plan. The DEIS will describe appropriate mitigation measures for managing the rate, quantity and quality of stormwater runoff during and after construction. The DEIS will include a spills management plan describing procedures to address proper reporting, cleanup and documentation of any spills during construction and operation of the proposed facility.

The DEIS will include a description of specific processes that will likely be implemented to ensure that any proposed de-watering activities will not impact receiving water bodies. Construction methods to properly manage concrete delivery and use will be evaluated.

The DEIS will include a description of whether, and in what locations, the development of proposed access roads and associated drainage improvements could intercept and concentrate stormwater flows experienced now under existing conditions. The discussion will focus upon whether the volumes now discharged to existing roadside ditches and associated culverts or the peak rates at which such flows are now discharged should be expected to increase as a consequence of the proposed project improvements and how any such increases would effect existing drainage infrastructure and improvements. The DEIS will describe how the design would avoid or mitigate significant adverse impacts to existing stormwater infrastructure in a manner consistent with SPDES regulations administered by NYS DEC.

Mapping will be included in the DEIS that details drainage pathways, direction of flow, and where new drainage pathways will outlet.

If the potential for blasting remains a component of the Project, the DEIS will specify a plan for pre-blasting water sampling and testing by a NYS certified water lab. All water sources for existing homes, livestock, businesses and camps within the area deemed by the fractured shale and other underground studies, to possibly be at risk from blasting, will be sampled and tested in order to establish baseline water quality prior to any blasting. The tests will include (but not be limited to) iron, turbidity, heavy metals, total coliform, total bacteria, BTX - Benzene, Toluene and Xylene, and yield. BTX will determine if oil and/or gas are present or if disturbance is released from same. If shale studies cannot determine a distance, all existing water sources within 2000 feet of all blasting sites shall be sampled and tested prior to blasting.

3.3 Biological, Terrestrial, and Aquatic Ecology

This subsection will provide data on the Project Area's terrestrial and aquatic ecological resources and assess the extent to which the proposed action would have an impact on those resources. It also will describe proposed measures to avoid, minimize or mitigate for impacts to ecological resources.

The dominant plant species and communities within the Project Area will be described, and a map depicting vegetative communities will be provided. State designated Wildlife Management Areas (WMA) and other state and/or local resources of special interest will be identified. Agency correspondence and consultation involving the NYSDEC Natural Heritage Program (NHP) and the U.S. Fish and Wildlife Service (USFWS), related to state- or federally-listed plant or animal species, and any associated analyses, will be described in this subsection. These and related field studies will be presented and relied upon to characterize the presence of federal or state-listed endangered and/or threatened species within the project area including, but not limited to, the great blue heron, short eared owl and Northern Harrier. The reported presence of bald eagles within the project area, the reliability of such reports, the likelihood of the presence of this species within the area, and the significance were bald eagles known to be within the project area will be discussed.

This subsection also will describe the general wildlife community and habitat of the Project Area, based on field surveys of flora and fauna conducted by a professional biologist. Potential impacts to the general wildlife communities and habitats will be addressed.

The DEIS will include the results of site-specific bird and bat studies, developed in consultation with the NYSDEC and USFWS.

On-site avian and bat studies will include all those identified as standard pre-construction studies in the NYSDEC Guidelines for Conducting Bird and Bat Studies at Commercial wind Energy Projects (NYSDEC, 2009). These studies include:

- Habitat surveys
- Raptor migration surveys
- Breeding and migratory bird surveys
- Bat acoustical monitoring

These studies will be of sufficient rigor to determine the temporal and spatial distribution of resident and migrating bird and bat species in and adjacent to the Project Area. The underlying work plan for pre-construction bird and bat studies will be included and the DEIS will describe communications the Project Sponsor has had with NYS DEC relative to their assessment of the work plan.

The basis for the Project Sponsor's exclusion of expanded pre-construction studies, such as radar studies, waterfowl surveys, expanded/raptor migration surveys, targeted breeding bird surveys, wintering bird surveys, or expanded bat studies (i.e., the Project Area is not located in or near features or resources that would warrant such studies as defined in Section 2b of the NYSDEC guidance document cited above) will be presented in detail as will be any NYS DEC correspondence relevant to this determination and the need for such studies.

All pre-construction studies of birds and bats will be completed and data analyzed prior to the release of the DEIS. Based on the results of these on-site studies, along with existing data and agency correspondence, the DEIS studies will identify potential impacts as a result of collisions with turbines, including the potential effects on, but not limited to, passerines raptors and bats. This section will also discuss the findings of any other relevant studies, literature and data that may be applicable to the Project Area.

The potential impacts to all ecological resources resulting from construction and operation of the Project (e.g., mortality, quantification of habitat loss, disturbance/displacement, fragmentation of grassland and forest habitat, etc.) will be described, as will appropriate measures to mitigate any such impacts. Habitats will be characterized and potential changes in natural habitats within the project area will be identified and evaluated including those related to clearing, forest fragmentation, and other effects of construction and operations on forestlands, riparian corridors, and vernal pools. State or federally-listed endangered, threatened or special concern species occurring within or near the Project Area on a seasonal or year-round basis will be identified, and mitigation measures designed to offset, reduce, or eliminate losses of listed species and associated habitat will be discussed.

A plan for a post-construction bird and bat mortality study will be outlined in the DEIS. The study will be designed to assess the impact of the Project on migrating birds and bats and displacement of resident species, particularly any species identified as rare threatened, endangered, or of special concern. This plan will be finalized through consultation with State and Federal Agencies (NYSDEC and USFWS). The DEIS will identify any impact mitigation strategies that will be relied upon to reduce project operational effects if significant effects are observed in the post construction monitoring phase.

3.4 Climate and Air Quality

This subsection will describe the existing air quality status within the region of the proposed action and discuss the affects of the proposed action on air quality during both construction (temporary) and operation (permanent). It will identify proposed means of mitigating construction-related impacts to local air quality, and will compare the effects of the proposed action to the effects of a conventional electric generating facility on air quality and climate.

3.5 Aesthetic and Visual Resources

This subsection will describe the visual character of the area within a 5-mile radius of the Project turbines (the visual study area), and will identify visual/aesthetic resources within this area that are considered sensitive from a statewide and local perspective. Potential Project visibility and visual impact will be evaluated in the following manner:

- Short-term visual impacts associated with Project construction will be described.
- The extent of potential Project visibility within the visual study area will be determined, based on viewshed analysis and field verification.
- The change in visual character that will result from implementation of the proposed action will be evaluated, based on the preparation and evaluation of at least 18 computer-assisted still and animated visual simulations of the proposed turbine array. Viewpoints to be used for the development of simulations will be selected in consultation with the Town Boards of the four municipalities in the Project area, with a minimum of 3 simulations each for Homer and Cortlandville, four for Truxton, and eight for Solon. The DEIS will also describe plans to provide visual simulations subsequently to all land owners requested them.
- Conduct balloon tests at representative locations as a calibrator for the visual simulations, and to allow the public to assess the view from their own properties. Complete documentation of balloon tests will be included in the DEIS.
- Night time impacts associated with FAA lighting will be described and any alternatives that would reduce these impacts will be reviewed including lighting triggered by aircraft proximity.
- The visibility of certain Project support facilities (e.g., overhead transmission line) will be described and the potential effects evaluated.
- Potential visual impacts will be evaluated, and measures to minimize impacts to aesthetic resources will be recommended.

The visual impact discussion in the DEIS will be based primarily on the results of a Visual Impact Assessment (VIA) that will be prepared in accordance with NYSDEC Visual Policy (see *Assessing and Mitigating Visual Impacts, DEP-00-2, NYSDEC, 2000*).

Viewshed analysis will include consideration views on visual resources of State and local importance from varying distances. Potential impacts will be documented and analyzed in accordance with the list of visual resources included in the Department of Environmental Conservation's (DEC) Visual Policy Statement. Specific visual contrasts will be assessed, characterized and described; visibility will be demonstrated through view shed mapping, line of sight analysis and photo simulation. Strategies to avoid or minimize significant impacts through consideration of mitigation measures will be demonstrated. Alternative analysis will include consideration of alternative scale projects and alternative layouts to avoid specific direct impacts on significant resources. High quality, large-format (11 x 17 inch) simulation views are required to provide reviewing agencies with depictions at a scale appropriate to assessing Project appearance. Appearance of the transmission facilities including a cleared right-of-way on steep slope facing Route 13 will be considered in visual assessment. Alternative routing to avoid a straight-line approach to the ridge line, and locating the substation site at a setback from the crest of the steep slope will be considered. The degree to which substation lighting will avoid off-site light trespass and glare, avoid up-ward directed lighting and use of task lighting where feasible will be described. Potential impacts to viewsheds from public trails passing through and near the project area will also be included in the analysis.

The VIA will provide a comprehensive assessment of potential Project visibility and visual impact. It will define viewer groups, landscape similarity zones, and visually sensitive resources. The DEIS will indicated whether the VIA results in a determination that adverse visual impacts may result from the project and whether mitigation is warranted. If the VIA indicates that mitigation is warranted, the DEIS will explore direct mitigation such as vegetative screening. Where direct mitigation is not practicable, the DEIS will present options relevant to visual offsets consistent with the DEC visual policy. To the degree it is practicable to do so, this assessment, exploration and presentation will be developed in concert with the evaluation of cultural resources and related potential impacts. Recognizing that wind power projects are likely to become unique and prominent visible features of the landscape from many locations, in accordance with NYSDEC Visual Policy, the full range of mitigation options will be evaluated, including alternate project sites and scales and the feasibility of visual offsets.

As part of the visual impact analysis, a study of potential shadow flicker impacts on nearby residences and properties will be conducted, including the number of potential receptors and the predicted annual hours of shadow flicker at each receptor. Properties that are anticipated to experience 30 or more hours of shadow flicker annually anywhere on that property will be identified in the DEIS by address and/or tax map number. Maps will be drawn to show the shadow flicker zone on both the summer solstice and winter solstice for each turbine location. A general discussion on potential impacts on local road and hiking or snowmobile trail users/drivers will be included. Mitigation of shadow flicker impacts will also be addressed.

3.6 Historic, Cultural and Archaeological Resources

The DEIS will identify the extent of any State or Federal Agency involvement and discuss the status and results of any historic preservation studies undertaken. Documentation of consultation with the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) will be included in the DEIS.

This subsection will identify and describe sites, structures, and districts with local or statewide significant historic and archaeological value (i.e., listed on the National Register of Historic Places) within a 5-mile radius of the Project Area. The applicant will conduct a phase 1A investigation and a historic structures (architectural) survey. Local historical societies, experts from area colleges and universities and other local government units will be consulted. The DEIS will include the results of the Phase 1A and an architectural survey report based on detailed investigations within the study area. The process will be conducted in concert with the visual assessment prepared in accordance with the

DEC visual policy that is presented in the foregoing subsection. The consistency of these investigations with SHPO guidelines applicable to wind farm development cultural resource surveys will be described. The extent of state or federal agency involvement will be described as will be associated historic and cultural resource protection requirements. Potential adverse impacts on historic and archaeological resources, either within the Project Area or its visual study area, will be addressed. Mitigation measures for impacts will be identified including any proposed to be applied to offset any identified adverse impacts. Following further consultation with the OPRHP and approval of a Phase 1B workplan, an archaeological investigation will be conducted subsequent to the DEIS, and the results will be provided in the FEIS.

3.7 Sound

The DEIS will document ambient sound conditions within the Project Area, describe anticipated construction-related noise, and calculate the increase over ambient that will result from operation of the proposed turbines or other project components. Methodology will be consistent with NYSDEC guidance. The DEIS will analyze the change of noise level over background, including predicted noise levels at the nearest adjacent residences. In addition to sound pressure levels prevailing and anticipated at residences, sound contour maps will indicate property boundaries so that property owners can assess the projected sound levels at these boundaries and elsewhere on the property. Background noise levels and characteristics will be measured under various weather and temperature conditions during day and night. It will be demonstrated how the number of ambient noise measurement location sites and site settings (wooded, open, hilly, flat, protected from prevailing wind or not) sufficiently characterize the various receptor micro-environments within the study area. In addition, it will be demonstrated that measurements have been made within the range of common weather conditions that occur within the study area. Noise spectra for the specific wind turbine units the Project Sponsor proposes to use will be obtained from the manufacturer's literature and field testing (by the manufacturer or other accredited party), including spectrum in one-third octave band frequencies, and impulse patterns. This information will be the basis for computer noise modeling. All parameters and variables used to model the background and Project -related sound levels will be provided and their suitability will be described, including potential reliance on L_{90} or other comparable measures developed to represent the ambient sound pressure levels prevailing in rural areas accurately and avoid introduction of bias associated with non-representative events. Resultant modeled contours in decibels will be related to the language of the NYSDEC guidance document, indicating the anticipated human reaction, from "unnoticeable" to "intolerable". The analysis will include consideration and discussion of possible disruption to nearby residents during the night as well as the potential need for measures, such as L_{dn} , referenced in DEC guidelines as potentially more appropriate when assessing noise levels between 10 pm and 7 am. The potential need for more complex analysis than is mentioned in the DEC guidance document will also be discussed. Proposed means of mitigating potential construction and operational noise impacts will be addressed.

Potential low frequency noise impacts and public health effects as well as corresponding effects upon livestock (dairy cows, horses and others) and wildlife will also be addressed in this subsection.

The DEIS will describe a proposed protocol for conflict resolution in the event that unanticipated noise impacts develop or are called into question.

3.8 Transportation

This subsection will describe the existing road system and identify those regional and local roads that are anticipated to be used for construction of the proposed Project. It also will describe the transportation requirements of the Project (e.g., turning radii, vehicle widths, vehicle weight), and present any limitations/deficiencies that affected roads, culverts and bridges may have. Traffic and transportation impacts anticipated to occur during the construction period will be described, including temporary damage and/or modifications to roads, temporary traffic delays (due to

slow-moving or parked vehicles), and widening/upgrades to existing roads and intersections to accommodate construction vehicles. The assessment conducted in this subsection will document the following:

- Required permits;
- Other requirements of State, County, City, Town and Village transportation officials with whom the Applicant will consult regarding roads to be used to transport equipment during construction, road improvements that may be necessary before such transportation, and repair of any damage to such roads and how these requirements will be satisfied;
- The need for road, bridge or culvert improvements including grade changes, widening of roadways at critical intersections, raising or relocating overhead utility wires at road crossings and reinforcement of road surfaces;
- Anticipated improvements, which may include clearing, widening, and turning radii improvements;
- Requirements for maintaining roads during construction;
- Impacts to private property (if any); and
- A plan for post construction inspections and remedial action.

This subsection also will discuss measures to remedy damage (if any) to local roads that may result from the proposed Project and will include a statement of responsibility for implementing mitigation including anticipated financial assurances for roadway improvements and restoration related to construction impacts.

3.9 Socioeconomics

This subsection will present the economics and local budgetary considerations of the proposed action, including general terms of any potential payment-in-lieu-of-taxes (PILOT) agreement. An assessment of property values will be provided and will draw conclusions from recent studies on the topic. Efforts will be made to locate studies based in New York or otherwise demonstrate relevance to this Project by confirmation of the following: sold residences within actual view or other direct effects of the windfarm, defined viewshed to look at relationship between property values and the distance from development, and the existence of a satisfactory baseline rate of change in property values prior to windfarm development. The DEIS will also discuss/assess the following existing conditions:

- Schools;
- Local governing structures;
- Services of employment (New York State Department of Labor Data);
- Tax base (residential, commercial, industrial);
- Local demographics.

In addition, the DEIS will also discuss the following in terms of potential benefits, impacts and/or mitigation:

- General financial benefits to land owners;
- Property values;
- Temporary and permanent jobs;
- Impact on town and county services;
- Benefits to the community;
- Tax implications to the community (town, county, school);
- Financial impacts, both during and after construction;
- Impacts to tourism and seasonal business activities including food, fuel, and lodging and including impacts to the future development of tourism over the life of the Project in the Project area and surrounding areas;
- Potential for impact to ground nesting birds and other wildlife and aquatic species affecting hunting, fishing, and bird watching in the Project area; and,
- Potential impact on dairy farming.

The review of fiscal impacts will include those to county, school district and municipal tax revenues, other anticipated payments to municipalities, the anticipated terms of any PILOT agreement that would be approved to support the project, and the project's reliance upon or anticipated utilization of NYS incentives and other incentives that would be authorized by the County IDA.

The evaluation of potential property value impacts will include a review of studies of potential property value impacts from wind energy projects and their findings. To the extent it is practical to do so, recent studies will be included and not merely studies completed earlier and studies that found an effect will be included as well as those that found none. The review will take into account the relative sizes of involved turbines and examine the likelihood that any previous studies finding no effect would have concluded otherwise were the size and density of involved turbines similar to those being proposed in this project.

3.10 Public Safety

The DEIS will address potential public safety issues associated with construction and operation of the proposed Project, including, construction safety, stray voltage, electro-magnetic fields, blade throw, tower collapse, lightning strikes, ice shed, and possible vibration impacts on the Cortland County landfill. This will include an evaluation of risks to occasional users of nearby lands for snowmobiling, snowshoeing, cross country skiing, hunting or other outdoor recreational activities.

High-pressure gas transmission pipelines will be depicted on a figure/map in relation to the Project components, and safety concerns associated with construction (e.g., crossing a pipeline with a Project access road and/or buried electrical collection line) and operation (turbine setbacks) will be addressed. The DEIS will address potential health hazards associated with commercial wind farms, including issues pertaining to low frequency noise and shadow flicker (strobe effect). The DEIS will describe the extent and quality of information regarding potential adverse impacts on human health that has been published in peer-reviewed journals or publications and published in other journals or publications in association with the internet url suffix of ".edu". Security measures and restrictions on public access and other means of avoiding or minimizing public safety risks will be discussed, along with proposed plans to respond to public safety incidents.

The DEIS will include a discussion of the potential for other effects upon the landfill as a consequence of project construction (i.e., nearby blasting), operations and any associated vibration, including potential impacts to the integrity of the cells (both lined and unlined), effects on quantity and quality of leachate and its collection and storage system, potential safety risks to employees and customers from ice throw, and potential for shadow flicker intrusion. The DEIS will document all existing examples of wind turbines placed on or near landfills.

The DEIS will document the fire protection equipment currently located in Cortland County able to reach 325 feet high and will document the need for plans to add new fire protection equipment, including potential costs and payment responsibilities. It will document how volunteer and paid fire and emergency personnel will be trained over the lifespan of the project to respond to all emergency situations relating to the wind turbines. It will document how fires will be addressed if volunteer firefighters do not believe they have the capacity to fight such fires or want to take on the risk involved.

If fires in the nacelles are anticipated to be allowed to burn out, the DEIS will discuss the potential for and likelihood of toxic materials from the burning nacelle, blades, or other combustible components being scattered in the nearby environment and carried further afar via smoke. If toxic smoke is a possibility, the DEIS must outline an evacuation plan when such need arises.

This section will include a response to comments regarding the potential for the project to impact public health negatively due to the variation in individual's capacity to process auditory and visual stimuli.

The DEIS will include a statement from Motorola that the placement of the turbines will not interfere in any way with the new emergency communications system.

Given the proposed turbine height, the DEIS will provide engineering documentation that the planned turbine foundations and that the size of the tubular steel towers are sufficient to provide safe structures that will not be subject to failure or tipover.

3.11 Community Facilities and Services

This subsection will describe existing county and local community services, including police, fire and, emergency service departments, school districts, solid waste management and state or locally-adopted solid waste management plans, and open space/recreation. Services provided by Camp Owahta and Solon Sportsmans Club will also be described. Such information will be based on personal communications with service providers and/or review and confirmation of pertinent literature/websites. The DEIS will identify how the proposed action will impact or benefit the above services and the resources of the entity providing the services. The adequacy of existing services and facilities will be evaluated, along with the potential economic benefits to these services and facilities resulting from Project implementation. Any required mitigation measures to offset or lessen potential impacts shall be identified, including a fire protection and emergency response plan developed in consultation with the local fire departments/emergency service providers.

3.12 Communication and Utility Transmission/Distribution Facilities

This subsection will identify any microwave beam paths (Fresnel zones) and television signals within the proposed Project Area, and evaluate potential Project impacts on microwave beam paths, as well as television, radio, and cellular phone reception and transmission. Specific attention will be paid to the county's proposed 911 communication facilities, and how these might be impacted by the Project. Mitigation measures to avoid and minimize impacts on communication facilities will be proposed.

This subsection will also describe and evaluate effects upon existing utility transmission and distribution systems and identify mitigation related to any such impacts.

This subsection will discuss potential interference with the operation of aircraft relying upon airfields within or near to the project site and will also address all correspondence to date with the Federal Aviation Administration (FAA), and review potential effects to the Cortland County Airport (e.g., potential effects to established approach patterns).

3.13 Land Use and Zoning

This subsection will evaluate the existing zoning and land use conditions and anticipated impacts. It will discuss the Project's compatibility with zoning requirements and development trends in the area. A land use map and quantification of land acreage impacts according to land use will be included. The DEIS will evaluate the relationship of the proposed action to existing land use (including agriculture) and the surrounding community. Specifically, the evaluation will include:

- Short and long range plans in the county.
- Short and long range plans in adjacent townships.
- Existing and proposed land use within and adjacent to the Project Area.
- Compliance/consistency with requirements of the local zoning and wind power ordinance (including all thresholds and set-backs).
- Consistency with local Comprehensive Plans and/or development goals.

- Consistency with relevant state land use guidelines such as New York Department of Agriculture and Markets Guidelines for Agricultural Mitigation for Windpower Projects.
- The compatibility of the proposed action with surrounding land uses.
- Discussion of effects on residential development.
- Discussion of the fact that many properties in the Project area have signed gas leases, discussion of whether the two industries can co-exist, citing such examples in other areas, and discussion of potential adverse ramifications of the juxtaposition of both industrial wind turbines and gas drilling, production, and transport in the Project area.

3.14 Vibrations

The DEIS will discuss vibrations to be emitted by the turbines and assess the impact of those vibrations. For background information on wind turbine induced vibrations, the DEIS will rely upon, at a minimum: Schofield, Robert. 2002. Seismic Measurements at the Stateline Wind Project and a Prediction of the Seismic Signal that the Proposed Maiden Wind Project Would Produce at LIGO. University of Oregon, Eugene, Oregon.

4.0 Unavoidable Adverse Impacts

This section of the DEIS will identify impacts that are likely to occur despite mitigation measures, and will compare the beneficial and adverse implications of these unavoidable impacts. This section will also identify general avoidance and mitigation measures (e.g., adherence to applicable regulatory requirements), and specific mitigation measures (e.g., development of a SWPPP, development of an Invasive Species Management Plan). The DEIS will include a short description of measures that will be taken should avoidance mitigation measures fail and adverse impacts occur as a consequence.

5.0 Alternatives Analysis

This section will commence with a description of the set of assumptions and various siting constraints that led to the development of the current Project proposal.

This section will include a description and evaluation of the range of reasonable alternatives to the proposed action. Alternatives to be considered will generally include alternate project size, alternate project location, alternate project layout, alternate turbine size and the “no action” alternative. Alternatives that meet the Project’s purpose needs and benefits and that are realistic and feasible alternatives will be discussed in sufficient detail to reasonably evaluate the anticipated environmental impacts associated with each option and the level of detail will be sufficient to permit a comparative assessment of the alternatives discussed.

Alternatives described will include those that avoid or reduce adverse impacts identified in the environmental review of the proposed action (e.g., can these impacts be avoided or reduced by reducing the project scale, re-configuring or relocating project components?) These evaluations will include the factors that led to the specific turbine layout for each alternative, 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 (e.g., archeological sites).

Alternative layouts incorporating more distant setbacks that could reduce potential noise, shadow flicker, aesthetic/visual, and public safety impacts related to potential ice throw, blade failure or collapse are among the range of reasonable alternatives to be discussed in the DEIS. Also to be included is a review of alternative substation locations. The range of alternatives must also include the no action alternative. The no action alternative

discussion should evaluate the adverse or beneficial site changes that are likely to occur in the reasonably foreseeable future, in the absence of the proposed action.

The range of alternatives may also include, as appropriate, alternative sites, technology, scale or magnitude, design, timing, use, and types of action. An alternative for which no discretionary approvals are needed, or which largely avoids identified adverse impacts, should also be described.

6.0 Irreversible and Irretrievable Commitment of Resources

This section of the DEIS will identify those natural and man-made resources consumed, converted or otherwise made unavailable for future use as a consequence of the proposed action

7.0 Growth-Inducing and Growth-Reducing Impacts

This section of the DEIS will describe potential growth-inducing aspects the proposed action may have, particularly the potential for additional development of wind power projects in the vicinity of the Project Area.

The project incorporates a setback regime that imposes a minimum distance or separation between proposed turbines and property lines as well as a greater minimum distance or separation between proposed turbines and occupied residences. The project area therefore includes potential residential sites on vacant land not presently occupied by a residence where, should a future residence be developed, the distance to the proposed turbines would be less than the minimum separation that will be provided between turbines and existing residences. This section will discuss and evaluate the extent to which the project would reduce the “developability” or potential value of such sites given that residences built upon them in the future would be located more closely to turbines than the minimum residential setback that would prevail throughout the project site initially.

This section will include the number of acres lost for future development including 1) the number of acres of Project leased lands subject to no build provisions, 2) the number of acres of non-participating properties that will be in the zone of residence setback, 3) the number of acres of participating properties that will be in the zone of residence setback.

8.0 Summary of Cumulative Impacts

The DEIS will evaluate the potential cumulative impact of the proposed Project, along with other wind power projects that have been proposed within the region. The potential for, and impact of future wind power projects, or expansion of the proposed Project, will also be addressed. Draft and Final environmental impact statements for other projects in the region will be reviewed and relevant information from these documents incorporated into the cumulative analysis.

9.0 Effects of Use and Conservation of Energy Resources

This section of the DEIS will describe the effect of the proposed action on the use and conservation of energy resources, including discussions on generating capacity, consistency with state energy plan and the renewable portfolio standard to increase the amount of renewable energy in New York. The Project will provide a comparison of pollution emitted by the Project as compared to a similar fossil fuel facility of comparable size.

10.0 References

This section of the DEIS will list any sources of relevant information cited directly in the report text.

APPENDICES TO ACCOMPANY DEIS

To supplement the information required in each topic section the following will be included:

- Relevant technical maps, figures and exhibits
- Specifications, construction information, or typical details
- Visual Impact Assessment
- Shadow Flicker Analysis
- Phase 1A Cultural Resources Investigation
- Historic Architectural Resources Survey
- Licensed Microwave Search, Analysis of AM/FM Broadcast, Cellular/PSC Telephone Operation, Land Mobile Radio Analysis, Off-Air TV Reception Analysis, NTIA Notification/Response
- Sound Level Assessment Report
- Route Evaluation Study
- Avian and Bat Studies
- Wetland and Stream Inventory Report
- Preliminary SWPPP
- Agricultural Protection Guidelines
- Socioeconomic Analysis
- Community Outreach and Communications Plan
- Relevant agency correspondence
- List of firms and persons responsible for both overall preparation of the DEIS and the underlying plans and other exhibits relied upon.