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## **2.13 Land Use and Zoning**

Current land use and zoning in the Project Area were determined through review of local town laws and zoning maps, land ownership data, and aerial photographs. Land use is discussed in terms of regional, local, and Project Area land use patterns; applicable local laws; agricultural land use; mining and natural gas use; and future land use. This section explains the existing land use in Section 2.13.1, the anticipated impacts on land use in Section 2.13.2, and the proposed mitigation of any significant impacts in Section 2.13.3.

### ***2.13.1 Existing Conditions***

#### *2.13.1.1 Regional and Local Land Use*

The Project Site is located in the northern portion of Chautauqua County in the towns of Arkwright and Pomfret on approximately 5,930 acres of leased, privately owned land. It is located about 9.5 miles southeast of the southern shore of Lake Erie, approximately 8 miles southeast of the City of Dunkirk, 6 miles southeast of the Village of Fredonia, 6 miles southwest of the Village of Forestville, and 5.5 miles northeast of the Village of Cassadaga (as measured from the geographic center of the Project Site to the center of each municipality). The Project Site is bordered at its northern extent by the Arkwright-Sheridan town line and Straight Road, at its eastern extent by the Arkwright-Villanova town line, at its southern extent by the Arkwright-Charlotte town line, and at its western extent by State Highway 60 (located in the Town of Pomfret, approximately 0.5 mile west of the Arkwright-Pomfret town line). All wind turbines will be located within Arkwright. The proposed site for the Project substation is located in Pomfret near the western extent of the Project, between State Highway 60 and the Arkwright-Pomfret town line.

Chautauqua County is located at the southwest corner of New York and is bordered by Lake Erie to the north-northwest, Pennsylvania to the south-southwest, and Cattaraugus County to the east. Land use in Chautauqua County is characterized mainly by agricultural and rural residential areas. Major developed commercial and industrial centers are located in the City of Dunkirk, to the north of Pomfret, and in the City of Jamestown, in the southeastern part of the county. The agricultural areas consist of 1,734 farms that contain 255,896 acres of agricultural land (USDA Census of Agriculture 2002) and represent 38 percent of the county's total 679,711 acres. The highest percentage of land use by number of parcels for the county is residential properties (53.1 percent), followed by vacant land (29.8 percent), commercial (4.5 percent), industrial (4.1 percent), and agricultural properties (4 percent) (New York State Office of Real Property Services 2006).

Agriculture is a significant contributor to the county's overall economy, as discussed in Section 2.9, Socioeconomics. It is one of the major dairy-producing counties, ranked 8<sup>th</sup> in the state, with a market value of production exceeding \$54 million in 2002 (USDA 2003). Chautauqua County beef production also ranks 7<sup>th</sup> in the state and had a market value of

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\$9 million in 2002. Chautauqua County, with its Lake Erie Viticultural Area, also produces over 60 percent of New York's annual grape harvest for grape juice and wine production (New York Wine and Grape Foundation 2008 and Chautauqua Visitor's Bureau 2008). Fruits and nuts comprise the second leading category of agricultural products with a market value of production approaching \$25 million in 2002 (USDA 2003). The majority of the grape production areas are located outside of the Project Area in the western part of the county along the shore of Lake Erie. Despite the importance of agriculture, employment in the agricultural sector accounted for only 2.7 percent of total employment in the county in 2000 (U.S. Census Bureau 2000). The educational, health, and social services accounted for the highest portion of employment in the county (24.3 percent), followed by manufacturing (21.3 percent), and retail trade (11.6 percent).

The Town of Arkwright is predominantly rural and does not have any commercial or industrial manufacturing centers. The highest percentage of land use by number of parcels for Arkwright is classified as residential (44 percent), followed by vacant land (31 percent), gas well-industrial (11 percent), agricultural (6 percent), public service properties (4 percent), and park and conservation properties (2.5 percent) (New York State Office of Real Property Services 2006). The agricultural properties consist mainly of agricultural vacant land (38 parcels), dairy farms (16 parcels), and corn and hay producing farms (7 parcels). Arkwright is not a major contributor to grape production within Chautauqua County, with four parcels in the vineyards category. The majority of the public service properties consist of land for telecommunications facilities. The parks and conservation land properties include the NYSDEC Canadaway Creek Wildlife Management Area to the south of the Project Site. The Canadaway Creek Wildlife Management Area encompasses approximately 2,000 acres and offers hiking trails, boat access, bird watching, cross-country skiing, hunting, fishing, and trapping (NYSDEC 2008)

Land use within the Town of Pomfret is also predominantly rural, but includes a few commercial areas as well. The major developed areas are located in and around the Village of Fredonia in the northern part of Pomfret and along Route 60. The highest percentage of land use by number of parcels in Pomfret is categorized as residential property (58 percent), followed by vacant land (25 percent), agricultural properties (4.5 percent), and commercial properties (4.4 percent). The agricultural character of Pomfret is similar to Arkwright, but includes significantly more vineyards, with 161 parcels in the vineyards category (New York State Office of Real Property Services 2006).

Land use within the Project Site is characterized mainly by forests and pastures. A few active agricultural fields are also present within the Project Site. As shown on Figure 2.3-1 of Section 2.3, the majority of the land within the Project Site is covered by forested land (67 percent). Cultivated crops and pastureland are dispersed throughout the Project Site and make up 9 and 13 percent of the land cover, respectively. The remaining 11 percent consists of developed lands, grassland, open water, and wetland habitat. Residential development is concentrated along the roads, such as Straight Road and Center Road. The Project Area also

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includes protected wildlife areas, county recreational areas, and other recreational trails and attractions. These areas include the Boutwell Hill State Forest, the Canadaway Creek Wildlife Management Area, the Earl Cardot Eastside Overland Trail and other various skiing and snowmobile trails, and Arkwright Falls. These recreation areas are discussed in more detail in Section 2.11 of this DEIS

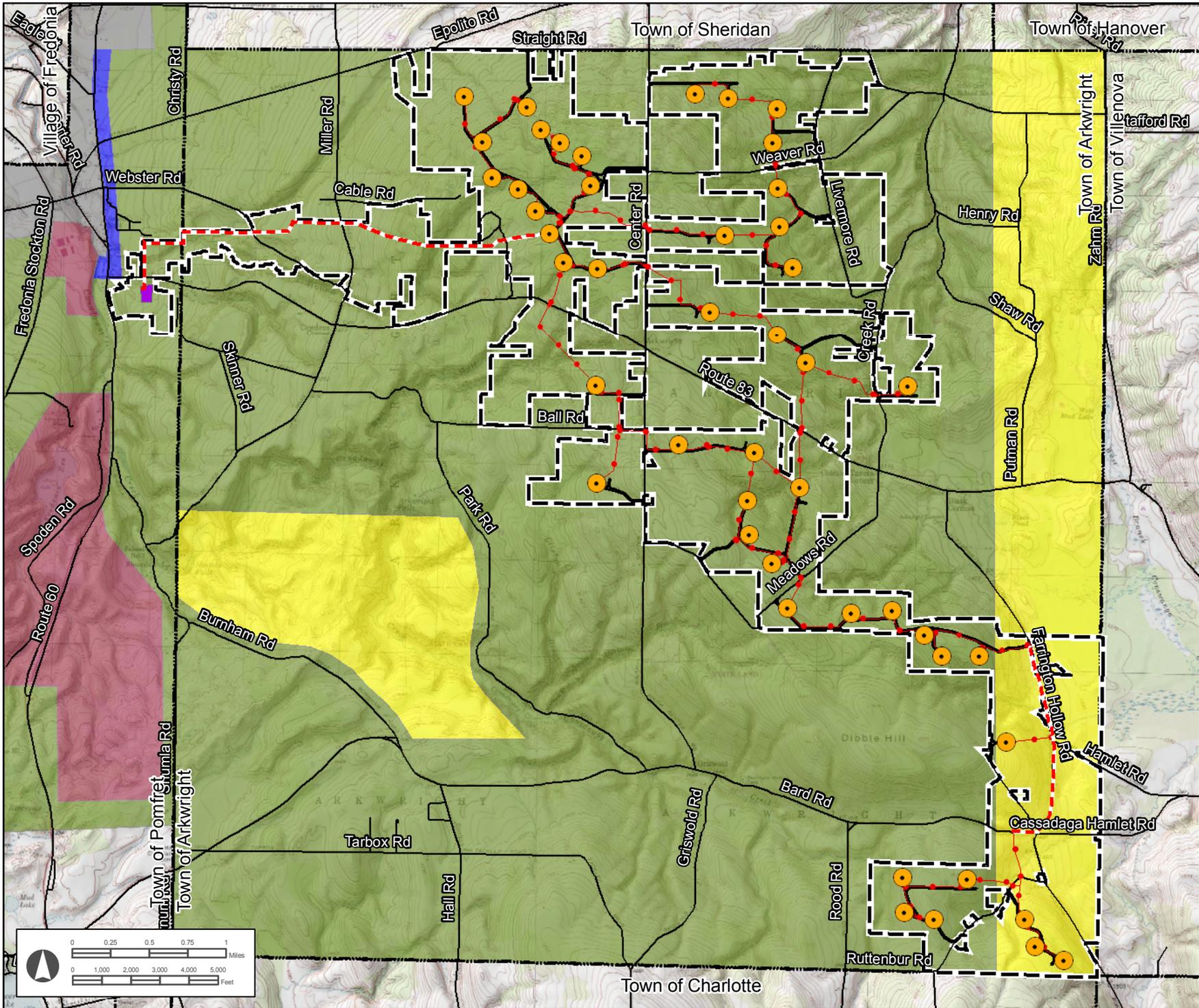
#### *2.13.1.2 Zoning and Other Applicable Local Laws*

Zoning jurisdiction within Chautauqua County is at the town level. Both the Town of Arkwright and Town of Pomfret have adopted zoning laws and local laws specific to wind energy development. The proposed Project will require a Special Use Permit from the Town of Arkwright and the creation of a Wind Overlay Zone (Town of Arkwright Local Law No. 2, 2007). Since no wind turbines are proposed in Pomfret, the Applicant does not expect that Pomfret's wind energy facility law will apply to the Project. However, zoning and other laws will apply to the substation, roads, and utility lines that are proposed within Pomfret. The Applicant will continue to consult with the Town of Pomfret to determine which permits and approvals will be required for the Project facilities that are located in Pomfret.

The Zoning Law of the Town of Arkwright establishes three districts within Arkwright (Figure 2.13-1) – the Agricultural-Residential (AR1) District, the Transition (T) District, and the Flood Plain (FP) District. AR1 Districts are established to promote maintenance of agricultural lands and to allow large lot residential development. T Districts are established to provide for the maintenance of rural land primarily for large lot residential development, as well as agricultural uses. T Districts also allow municipal sewage or water systems and some commercial uses. The Arkwright zoning map does not show the location of the FP-Flood Plain Districts. The Applicant will continue to consult with Arkwright zoning officials regarding floodplains.

Figure 2.13-1 also shows Pomfret zoning districts in the Project Area. The Project facilities that will be located in Pomfret fall entirely within the AR1 – Agricultural/Residential District. Uses related to utilities and wind energy are allowed in the AR1 district upon the issuance of a permit (Pomfret Zoning Regulations, Section 404.B and Pomfret Local Law 3 of 2007, §647-G.A). The Applicant will continue to consult with the Town of Pomfret to determine which permits and approvals will be required for the Project facilities that are located in Pomfret.

In Arkwright, wind energy facilities are allowed in the AR1 district and in the T District along the eastern boundary of Arkwright and are considered uses that require a special use permit (Town of Arkwright Local Law 2 of 2007, §656). A Wind Overlay Zone also must be established over the current zoning designation for the land associated with the wind energy facility.



- Legend**
- Turbine
  - Overhead Collection System
  - Underground Collection System
  - Access Road
  - Substation
  - Roads
  - Wind Overlay Zone
  - Town Boundary
- Pomfret/Arkwright Zoning\***
- Agricultural Residential (AR1)
  - Highway Business (B2)
  - Conservation (C1)
  - Transition (T)
  - Other

\*NOT TO BE USED AS OFFICIAL ZONING MAP

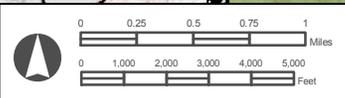


**TETRA TECH EC, INC.**

NEW GRANGE WIND FARM  
CHAUTAUQUA COUNTY,  
NEW YORK

FIGURE 2.13-1  
ARKWRIGHT AND POMFRET  
ZONING IN PROJECT AREA

NEW GRANGE WIND FARM LLC  
FEBRUARY 2008



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On January 10, 2008, Horizon submitted its joint application for the creation of a Wind Overlay Zone and Special Use Permit application to the Town of Arkwright. Figure 2.13-1 shows that the proposed Wind Overlay Zone encompasses the area referred to as the Project Site and falls within the allowed AR1 and T districts. The Town Board will review the application and supporting SEQR documentation and will either approve, approve with conditions, or disapprove the proposed Project. If approved, the Town Board will issue a Special Use Permit upon satisfaction of all required conditions.

The Arkwright Zoning Law requires that a lighting plan showing FAA lighting and other proposed lighting be included with the application (§657.A.8). The Applicant has submitted a lighting plan to the FAA and is awaiting a response. More information regarding required permits and approvals and the SEQR process is provided in Sections 1.10 to 1.12.

The Arkwright Zoning Law also establishes setbacks and standards for the WTGs, or wind energy conversion systems (WECS) as they are formally referred to in that Law. Each WECS must adhere to the following setback requirements, as described in Town of Arkwright Zoning Law, §662:

- 500 feet from the nearest Project Site boundary property line;
- 500 feet from the nearest public road;
- 1,200 feet from the nearest off-site residence existing at the time of application, measured from the exterior of such residence;
- One and a half times the total height of the WECS from any non-WECS structure or any aboveground utilities;
- 100 feet from state-identified wetlands;
- 500 feet from gas wells; and
- 1,200 feet or 200 percent of the total tower height, whichever is greater, from the boundaries of the county's existing or proposed trails, trail facilities, and recreation areas.

In addition to setbacks, the following standards would apply to all WECS, unless specifically waived by the Town Board as part of the Special Use Permit.

- All power transmission lines from the tower to any building or other structure shall be located underground to the maximum extent practicable.
- No television, radio or other communication antennas may be affixed or otherwise made part of any WECS, except pursuant to the telecommunications provisions of the Town Zoning Code. Applications may be jointly submitted for WECS and telecommunications facilities.

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- No advertising signs are allowed on any part of the Wind Energy Facility, including fencing and support structures.
  - No tower shall be lit except to comply with FAA requirements. Minimum security lighting for ground level facilities shall be allowed as approved on the Site Plan. Security lighting shall be designed to minimize light pollution, including the use of light hoods, low glare fixtures, and directing lights to the ground.
  - All Applicants shall use measures to reduce the visual impact of WECS to the extent possible. WECS shall use tubular towers. All structures in a project shall be finished in a single, non-reflective matte finished color or a camouflage scheme. Individual WECSs within a Wind Overlay Zone shall be constructed using wind turbines whose appearance, with respect to one another, is similar within and throughout the Zone, to provide reasonable uniformity in overall size, geometry, and rotational speeds. No lettering, company insignia, advertising, or graphics shall be on any part of the tower, hub, or blades.
  - The use of guy wires is prohibited.
  - No WECS shall be installed in any location where its proximity with existing fixed broadcast, retransmission, or reception antenna for radio, television, or wireless phone or other personal communication systems would produce electromagnetic interference with signal transmission or reception. No WECS shall be installed in any location along the major axis of an existing microwave communications link where its operation is likely to produce electromagnetic interference in the link's operation. If it is determined that a WECS is causing electromagnetic interference, the operator shall take the necessary corrective action to eliminate this interference, including relocation or removal of the facilities, or resolution of the issue with the impacted parties. Failure to remedy electromagnetic interference is grounds for revocation of the wind energy permit for the specific WECS or WECS causing the interference.
  - All solid waste and hazardous waste and construction debris shall be removed from the site and managed in a manner consistent with all appropriate rules and regulations.
  - WECS shall be designed to minimize the impacts of land clearing and the loss of open space areas. Land protected by conservation easements shall be avoided when feasible. The use of previously developed areas will be given priority wherever possible.
  - WECS shall be located in a manner that minimizes significant negative impacts on rare animal species in the vicinity, particularly bird and bat species.
  - WECS shall be located in a manner consistent with all applicable state and federal wetland laws and regulations.
  - Stormwater runoff and erosion control shall be managed in a manner consistent with all applicable state and federal laws and regulations.

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- The maximum total height of any WECS shall not exceed 420 feet.
  - Construction of the WECS shall be limited to the hours of 8 a.m. to 8 p.m., except for certain activities that require cooler temperatures than possible during the day, subject to approval from the Town.
  - Any construction or ground disturbance involving agricultural land shall be done according to the Ag & Markets publication titled “Guidelines for Agricultural Mitigation for Wind Power Projects.”

#### *2.13.1.3 Agricultural Land Use*

As stated above, 1,734 farms occupy 255,896 acres in Chautauqua County according to the USDA Census of Agriculture (2002). Chautauqua County has approximately 59 percent of its farmland used as cropland, 24 percent used as woodland, 6 percent used as pastureland, and 11 percent used for other purposes (USDA 2003). Of the 3,764 total agricultural parcels in Chautauqua County, the majority consist of agricultural vacant land (1,380), followed by vineyards (1,201), field crops (473), dairy products (417), and cattle, calves, and hogs (128) (New York State Office of Real Property Services 2006). According to U.S. Census Bureau (2000) statistics, 2.7 percent of the county’s population was engaged in farming in 2000.

Cultivated crops and pastureland are dispersed throughout the Project Site and make up 9 and 13 percent of the land cover, respectively (Figure 2.3-X). Agricultural properties within the Project Site consist mainly of inactive agricultural land and pasture land, with a few active crop fields. Most of the proposed Project would be built on or adjacent to forested lots or pasture lands.

The Project Site includes one agricultural district in Arkwright (Agricultural District #10) and one agricultural district in Pomfret (Agricultural District #9) that are designated in accordance with Ag & Markets program standards. Approximately 57 percent of the Project Site is located in these two districts (Cornell IRIS 2006).

#### *2.13.1.4 Mining and Natural Gas Use*

As discussed in Section 2.1, there are 47 natural gas wells (producing wells, non-commercial wells, and plugged and abandoned wells) within the Project Site. The wells produce natural gas from the Medina Formation sandstone and are part of the extensive Lakeshore gas field. The wells are typically drilled to a depth of approximately 3,000 feet. Several of the active natural gas wells are located in the general area of Project improvements such as turbines, access roads, and the electrical collection system. The Project has been specifically designed to comply with the town setback requirements regarding gas wells.

The NYSDEC Environmental Mapper tool, available on the NYSDEC website (NYSDEC Environmental Mapper) shows two sand and gravel/unconsolidated mining operations (borrow pit) within the Project Site. The outwash deposits at the site have a small sand and gravel

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quarry/borrow pit situated along Putnam Road. The thickness of the outwash deposit is estimated to be 10 to 20 feet thick (Frampton 1986). The outwash deposit is likely utilized as a water supply aquifer for farms located on the deposit. The locations of these two existing operations are depicted on Figure 2.1-4 of Section 2.1.

#### *2.13.1.5 Future Land Use*

Other than land that is directly developed for the proposed Project, future land use patterns in the area are anticipated to remain largely unchanged for the foreseeable future. Existing agricultural and rural land uses will be able to coexist with the operating wind energy facility. Arkwright does not have a formalized land use plan aside from the Zoning Regulations to guide future development in the Town. However, communication with the Town of Arkwright Supervisor indicated no formally proposed or planned future commercial or industrial developments (Norton 2008). The Town of Pomfret is in the process of preparing a comprehensive plan, but the plan is not available as of the writing of this DEIS and will not be available for at least a year (Joy 2008 pers. comm.).

#### **2.13.2 Anticipated Impacts**

Project impacts on land use would include temporary, construction-related impacts, and permanent, operation-related impacts. These impacts are described below.

##### *2.13.2.1 Construction*

###### *2.13.2.1.1 Regional and Local Land Use*

The proposed Project is consistent with land use patterns in both towns. The Project would be developed on privately owned land. More information on land use during construction of the proposed Project is discussed in the agricultural land use section, Section 2.13.2.1.3. Additionally, impacts to recreational areas during construction of the proposed Project is expected to be short-term and limited to minor dust or noise impacts, as discussed in Section 2.11.

###### *2.13.2.1.2 Zoning and Other Applicable Laws*

Construction activity would be conducted in compliance with local wind energy facility requirements in the Town of Arkwright and the Zoning Law of the Town of Pomfret, and with any conditions appearing in the local permits acquired for the Project. The turbines would be sited in accordance with the Town of Arkwright's WECS setbacks and standards, as described in Section 2.13.1.2, including local height restrictions (of 420 feet or less).

###### *2.13.2.1.3 Agricultural Land Use*

Temporary, construction-related disturbance to agricultural land would affect approximately 130 acres of lands under active agricultural practices (e.g., cultivated crops, pasture, and hay), as discussed in Section 2.3. However, this represents a conservative estimate of disturbance to agricultural land as these include areas that may not be active or proposed agricultural areas

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such as open fields. Along with this direct impact to agricultural land, movement of equipment and material could result in temporary dismantlement of fences and gates, inadvertent damage to subsurface drainage systems, and temporary blockage of farmers' access to agricultural fields or to local roads. However, the wind turbines and associated facilities have been located to minimize loss of active agricultural land and interference with agricultural operations. Additionally, impacts to active agricultural land use are expected to be minimal because there are few cultivated fields within the Project Site and most turbines are located within or adjacent to woodlots and pastures. In addition, to the extent practicable, construction activities will occur in compliance with the New York State Department of Ag & Markets Guidelines for Agricultural Mitigation for Windpower Projects (Ag & Markets 2007), which provide guidance for avoidance of impact, mitigation, and restoration of agricultural assets. A small amount of residential land could be temporarily impacted by the Project, but these impacts would be confined to the properties of participating landowners, and would be largely temporary in nature (construction activity).

#### *2.13.2.1.4 Mining and Natural Gas Use*

Construction of the proposed Project is not expected to affect the sand/gravel quarries and gas wells in the Project Area. Project facilities have been sited to avoid carrying out construction activities near existing natural gas infrastructure. Mines and gas wells within the Project Site were identified and are shown on Figure 2.1-4 of Section 2.1. Wind turbines have been sited in accordance with the 100-foot setback established by the Arkwright Local Law. The Applicant will also conduct a geotechnical investigation to identify the exact locations of buried gas lines and wells prior to the start of construction, as described in Section 2.1. The locations of turbines, roads, and underground collection lines will be adjusted as necessary to minimize risk prior to the FEIS.

As discussed in Section 2.1, it is not anticipated at this time that blasting will be necessary during construction activities. Therefore, potential impacts on natural gas wells are not anticipated. The potential need for blasting of bedrock will be determined once the results from the proposed geotechnical investigation have been analyzed to determine the characteristic and depth of bedrock.

#### *2.13.2.1.5 Future Land Use*

No impacts are anticipated to future land use decisions or projects during construction of the proposed Project. Section 2.13.2.2.5 discusses operational impacts of the Project on future land uses.

#### *2.13.2.2 Operation*

##### *2.13.2.2.1 Regional and Local Land Use*

The proposed Project would change the appearance of the landscape. However, it is generally consistent with existing land use patterns in both towns, given the rural-agricultural nature of the

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area. During operation of the Project, the turbines would be located primarily on land dominated by forest land and pasture land. Current land uses would continue to occur except within the specific areas where Project facilities would exist. More information on land use during operation of the proposed Project is discussed in the agricultural land use section, Section 2.13.2.2.3. Additionally, the operational Project is not anticipated to have an adverse impact upon the recreational uses within and near the Project Area, as discussed in Section 2.11. The Applicant has sited wind turbines in accordance with the required setback of 1,200 feet from the boundaries of the county's existing or proposed trails, trail facilities, and recreational areas.

#### *2.13.2.2.2 Zoning and Other Applicable Laws*

Operation of the Project would be in compliance with all local laws in the towns of Arkwright and Pomfret and Project permits issued by each town.

#### *2.13.2.2.3 Agricultural Land Use*

The operating Project would be compatible with agricultural land use in the Project Area. Additionally, impacts to active agricultural land use are expected to be minimal because there are few cultivated fields within the Project Site and most turbines are located within or adjacent to woodlots and pastures.

The Project is also likely to help keep land within agricultural use, which is considered a long-term positive impact of the proposed Project and the Town. There are several reasons that wind energy helps preserve agricultural uses. First, the presence of wind turbines is consistent with farming because agricultural uses can occur right up to the base of modern wind turbines. Second, the presence of wind turbines on agricultural land discourages encroaching non-agricultural uses such as residential suburban sprawl. In Chautauqua County, land in farms has been decreasing over the past few decades, falling from approximately 425,000 acres in 1959 to approximately 250,000 acres in 2003 (USDA 2003) And finally, income derived from hosting wind turbines on agricultural land can help family farmers afford to continue farming operations on their property by creating a stable supplemental source of income for several years. In 2004, the U.S. Department of Energy reported that if wind power comprised just 5 percent of the U.S. electricity market, about \$60 billion in capital investment would be made in rural communities. The study stated further that this would include \$1.2 billion in new income for farmers and landowners and the creation of 80,000 rural jobs. According to Tim Bigham, Senior Field Advisor for the New York State Farm Bureau, a “carefully devised and well constructed wind farm can be a boon for agriculture in whatever area it is placed” (Bigham 2007). These types of positive impacts created by the Project would provide long-term benefits to the local and regional agricultural industry.

Permanent impacts to agricultural land that would result from operation of the Project would include the permanent conversion of productive agricultural land to use for Project facilities such

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as access roads, turbine foundations, and O&M building. Agricultural use will continue to be allowed over areas where power collection lines are buried. These impacts have been minimized through proper siting of the Project facilities, including close coordination with landowners, and adherence to Ag & Markets Guidelines. Impacts would be further minimized and/or avoided with the use of BMPs to control erosion and sedimentation.

Minor changes in land use in the Project Area are anticipated as a result of Project implementation. The 47 turbine sites, substation, and other ancillary facilities represent the cumulative conversion of approximately 70 acres of agricultural developed land use. However, this represents a conservative estimate of disturbance to agricultural land as these include areas that may not be active or proposed agricultural areas such as open fields.

During Project operation, adverse impacts on agriculture land would be minimal. Other than occasional maintenance and repair activities that could have discrete localized impacts similar to those described in Section 2.13.2.1, the Project would not interfere with ongoing farming operations. By supplementing the income of participating landowners, the Project would help keep farms in operation and the land in agricultural use. The presence of wind turbines may limit the conversion of some agricultural land to seasonal or permanent residential use.

#### *2.13.2.2.4 Mining and Natural Gas Use*

Operation of the proposed Project is not expected to impact the existing mines and natural gas wells in the Project Area.

#### *2.13.2.2.5 Future Land Use*

Since there are currently no future developments planned in Arkwright, the proposed Project is not expected to interfere with future land uses. The Project will have a positive impact on future infrastructure improvements within Arkwright, because revenues to the town generated from the Project will enable improvements to the 40 miles of local roads, 36 of which are currently dirt roads, and will enable renovation or rebuilding of the town hall (Norton 2008 pers. Comm.).

Capturing the wind asset will provide an individual benefit to landowners, an economic benefit to the local community, and energy security and environmental and human health benefits to the state. There is no major conflict between the proposed Project and most future residential developments.

However, as noted in the Visual Impact Assessment prepared for the Project (Appendix F), the Project would result in a change in the viewshed from various vantage points in the Project vicinity, which could affect the manner in which some people perceive the rural character of this community. Perception of the rural character of the area could be altered for some viewers due to the presence of the turbines, especially in locations where a number of turbines can be seen or where the turbines can be viewed from foreground distances (i.e., under 0.5 mile).

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### ***2.13.3 Mitigation Measures***

The Applicant has carefully planned and sited the Project facilities and has minimized or avoided impacts to existing and probable future land uses to the extent practicable. Mitigation measures associated with unavoidable construction and operational impacts are described below.

#### *2.13.3.1 Construction*

##### *2.13.3.1.1 Regional and Local Land Use*

The proposed Project is consistent with existing land uses and is compatible with the rural residential, forest, and agricultural land use that dominates the Project Area. Anticipated mitigation measures to reduce the impact of the wind energy facility on existing land uses during construction include full compliance with the local laws regulating the development of wind energy facilities and sound implementation of all local and state permit conditions. These actions would assure that adverse impacts on land use are minimized or mitigated to the extent practicable.

##### *2.13.3.1.2 Zoning and Other Applicable Laws*

The Project construction would comply with local laws in both the towns of Arkwright and Pomfret. This will include compliance with local wind energy facility ordinances and construction-related permit conditions designed to avoid or minimize environmental impacts.

##### *2.13.3.1.3 Agricultural Land Use*

The Project would impact agricultural land (at least temporarily) throughout the area. To minimize and/or mitigate impacts to active agricultural land and farming operations, Project siting and construction would fully comply with Ag & Markets Guidelines for Agricultural Mitigation for Windpower Projects (Ag & Markets 2007). A Notice of Intent to Undertake an Action within an Agricultural District would be filed with the New York State Department of Agriculture and Markets and the Chautauqua County Agriculture and Farmland Protection Board. Proposed agricultural protection measures have been prepared in accordance with Ag & Markets Guidelines for Agricultural Mitigation for Windpower Projects and are included in Appendix C. These mitigation measures include:

- Minimizing impacts to normal farming operations by locating structures and access roads along field edges where possible.
- Having roads that must cross agricultural fields stay on ridge tops and other high ground to minimize cut and fill and potential drainage problems.
- Avoiding disturbance of surface and subsurface drainage features (e.g., diversions, ditches, tile lines).
- Building the surface of access roads through agricultural fields' level with adjacent field surfaces.

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- Installing culverts and water bars to maintain natural drainage patterns.
  - Prohibiting vehicular access to turbine sites until topsoil has been stripped and permanent access roads have been constructed.
  - Stockpiling topsoil from work areas separate from all other excavated material (e.g., rock, subsoil).
  - Maintaining a minimum depth of 48 inches in cropland, hayland, and improved pasture areas to bury electric wires.
  - Removing excess subsoil and rock, and onsite disposal of such material may be allowed if approved by the Environmental Monitor.
  - Temporarily fencing work areas in active pastureland to protect livestock.
  - Removing and disposing of all construction debris offsite at the completion of restoration.
  - Restricting heavy equipment to designated access roads, crane paths, and work pads at the structure sites for all setup, erection, and breakdown activities.
  - Disposing of excess concrete offsite and washing of concrete trucks outside of active agricultural areas.
  - Restoring agricultural land based on an appropriate seasonal schedule.
  - Decompacting all disturbed agricultural areas to a depth of 18 inches after construction.
  - Grading access roads to allow for farm equipment crossing and to restore original surface drainage patterns.
  - Stabilizing restored agricultural areas with seed and/or mulch.
  - Repairing all surface or subsurface drainage structures damaged during construction.
  - Providing a monitoring and remediation plan of no less than two years immediately following completion of the initial restoration.

Additionally, if any issues arise during construction of the Project, the Applicant will work to resolve them using the Complaint Resolution Procedures provided in Appendix N of this DEIS.

#### *2.13.3.1.4 Mining and Natural Gas Use*

As discussed in Section 2.1, mitigation of impacts to the local quarry and natural gas well operations will not be required because the Project has been sited to avoid impacts to those operations. However, if any affects to quarries and gas well use occur, the Applicant would work to resolve any reported issues using the Complaint Resolution Procedures provided in Appendix N of this DEIS.

#### *2.13.3.1.5 Future Land Use*

The construction of the proposed Project and subsequent site restoration activities will not significantly alter the opportunity for future land uses in the Project Area. Therefore, no

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additional land use mitigation measures are required beyond those contained in the Towns' Zoning laws, and incorporated into the Project's design.

### *2.13.3.2 Operation*

#### *2.13.3.2.1 Regional and Local Land Use*

The proposed Project is consistent with existing land uses and is compatible with the agricultural and rural residential land use that dominates the Project Area. No additional mitigation measures are anticipated during operation of the proposed Project. Project O&M staff will work with local landowners to coordinate their maintenance activities in a manner that will not adversely impact seasonal agricultural activities, especially as they relate to movement of vehicles or equipment over agricultural lands.

#### *2.13.3.2.2 Zoning and Other Applicable Laws*

Project operation would comply with local laws in both the towns of Arkwright and Pomfret. Close communication with local authorities and Project O&M staff will ensure that any operational issues that arise over time are addressed promptly. No mitigation measures are anticipated during operation of the proposed Project.

#### *2.13.3.2.3 Agricultural Land Use*

Continuing operation and maintenance activities may benefit existing land uses since Project Site roads will be maintained by Project staff, thus benefiting current landowners who also rely on these roads for farming activities. Project O&M staff will work with local landowners to coordinate their maintenance activities in a manner that will not adversely impact seasonal agricultural activities, especially as they relate to movement of vehicles or equipment over agricultural lands. Therefore, no additional mitigation measures are anticipated during operation of the proposed Project.

#### *2.13.3.2.4 Mining and Natural Gas Use*

No impacts are expected to quarries and gas wells during Project operations. However, if any affects to mining and gas well use occur, the Project O&M staff would work to resolve any reported issues using the Complaint Resolution Procedures provided in Appendix N of this DEIS.

#### *2.13.3.2.5 Future Land Use*

Operation of the proposed Project is consistent with future land uses anticipated within the Project Area. Project operation would comply with local laws in both the towns of Arkwright and Pomfret. Close communication with local authorities and Project O&M staff will ensure that any operational issues that arise over time are addressed promptly. No mitigation measures have been identified during operation of the proposed Project.