

# **Heritage Wind Project**

**Case No. 16-F-0546**

**1001.4 Exhibit 4**

**Land Use**

## TABLE OF CONTENTS

EXHIBIT 4	LAND USE .....	1
(a)	Map of Existing Land Uses.....	1
(b)	Transmission Facilities Map.....	4
(c)	Tax Parcel Map .....	4
(d)	Zoning District Map .....	5
(e)	Comprehensive Plans .....	5
(f)	Map of all Publicly Known Proposed Land Uses Within the Study Area .....	7
(g)	Map of Specially Designated Areas .....	7
(h)	Map of Recreational Areas and Other Sensitive Land Uses .....	8
(i)	Compatibility of the Facility with Existing and Proposed Land Uses .....	10
(j)	Compatibility of Above-Ground Interconnection with Existing and Proposed Land Uses.....	21
(k)	Compatibility of Underground Interconnections with Existing and Proposed Land Uses .....	21
(l)	Conformance with the Coastal Zone Management Act.....	21
(m)	Aerial Photographs.....	22
(n)	Aerial Photograph Overlays .....	22
(o)	Source of Aerial Photographs .....	22
(p)	Community Character .....	22
REFERENCES	.....	25

### LIST OF TABLES

Table 4-1.	Town of Barre, Land Use by Tax Parcel Classification, 2014 .....	2
Table 4-2.	Facility Impacts to Soils within Agricultural District Lands.....	3
Table 4-3.	Conservation Easements within the 5-Mile Study Area .....	4
Table 4-4.	Mapping of Specially Designated Areas .....	7
Table 4-5.	Mapping of Recreation and Sensitive Areas .....	8
Table 4-6.	Land Use Impacts .....	10
Table 4-7.	Facility Consistency with Comprehensive and Regional Planning Documents.....	14

## EXHIBIT 4 LAND USE

### (a) Map of Existing Land Uses

#### NYSORPS Land Use Classification

Figure 4-1 illustrates existing land uses in the area within a 5-mile radius of the Facility Site (i.e., the “5-mile Study Area”). This map was prepared using publicly available data from the Orleans County GIS Department and the Genesee County Planning Department, and the land was classified based on codes developed by the New York State Office of Real Property Services (NYSORPS). The following land use classification codes occur within the 5-mile Study Area: 100 – Agricultural; 200 – Residential; 300 – Vacant Land; 400 – Commercial; 500 – Recreation and Entertainment; 600 – Community Services; 700 – Industrial; 800 – Public Services; and 900 – Wild, Forested, Conservation Lands and Public Parks.

#### Vacant Land

Approximately 158 acres within the Facility Site have been classified as vacant land under the NYSORPS classification system. Vacant land is defined by the NYSORPS Assessor’s Manual as property that is not in use, is in temporary use, or lacks permanent improvement. Approximately 118 acres of the vacant land are forested, 8 acres are row or field crops, 23 acres are pastureland, 6 acres are scrub/shrubland, and 3 acres are disturbed/developed (i.e., characterized by the presence of buildings, parking lots, paved and unpaved roads, lawns, gravel mines, and/or gas/oil infrastructure). Of the 158 acres of vacant land, approximately 6 acres are currently enrolled as a NYS Certified Agricultural District, discussed in greater detail below.

As part of pre-application outreach activities, the Applicant corresponded with Town of Barre officials in November 2019 to review the development status of the mapped vacant parcels (see Public Involvement Program [PIP] Cumulative Event Log, Appendix 2-B). No known proposed developments or land use changes had been filed with the Town at the time of filing this Article 10 Application.

#### Town of Barre Comprehensive Plan - Land Use Tabulation

In 2017, the Town of Barre adopted a Comprehensive Plan that includes land use information based on 2014 tax parcel classifications. This information is provided in Table 4-1 below.

**Table 4-1. Town of Barre, Land Use by Tax Parcel Classification, 2014**

<b>Assessor's Property Classification</b>	<b>Number of Parcels</b>	<b>Approximate Area (Acres)</b>	<b>Percent of Total Land Area</b>
Agriculture	415	19,505.39	56.43
Residential	764	10,233.43	29.61
Vacant	231	4,271.60	12.36
Commercial	22	264.42	0.77
Recreation	2	10.16	0.03
Community Service	15	22.19	0.06
Industry	2	114.73	0.33
Public Service	4	25.30	0.07
Park and Forest Land	3	116.36	0.34
<b>Total</b>	<b>1,458</b>	<b>34,563.58</b>	<b>100.00</b>

New York State Agricultural Districts

State-certified Agricultural Districts cover approximately 19,895 acres (56.5%) of the land within the Town of Barre (Orleans County, 2016). Approximately 3,892 acres (67%) of the Facility Site is enrolled in a New York State Certified Agricultural District, established pursuant to Article 25-AA of the New York Agriculture and Markets Law. Figure 4-2 depicts agricultural district land on the Facility Site. The purpose of agricultural districting is to encourage the continued use of farmland for agricultural production. The program covers land and on-farm buildings that contribute to the production of crops, livestock, and livestock products (e.g., field and row crops, orchards, livestock, poultry, Christmas trees, maple sap, apiary products, timber operation, nursery stock and flowers, commercial horse boarding, aquaculture, fur-bearing animals, and woody biomass). The program is based on a combination of landowner incentives and protections, all of which are designed to forestall the conversion of farmland to non-agricultural uses. This designation does not wholly restrict substantial changes in land use. In fact, numerous wind farms have been built within Certified Agricultural Districts in New York State, and when appropriately designed and built, such projects are consistent with, and supportive of, agricultural land uses and districts and allow continued use of farmland for agricultural production. Table 4-2 summarizes impacts to soils on designated agricultural district lands within the Facility Site. Most of these impacts will be temporary and subject to restoration activities following construction. Measures to mitigate impacts to agricultural land are discussed in Section (i).

**Table 4-2. Facility Impacts to Soils within Agricultural District Lands**

<b>Agricultural District</b>	<b>Acres within Facility Site</b>	<b>Total Soil Impact (acres)</b>	<b>Temporary Soil Impact (acres)</b>	<b>Permanent Soil Impact (acres)</b>
Orleans County District 2	3,892	107.7	69.0	38.8

Six other agricultural districts are located outside of the Facility Site, but within the 5-mile Study Area, three of which are located in Genesee County (see Section (g) below).

#### 480-a Forest Tax Law

In 1974, the State of New York enacted New York Real Property Tax Law Section 480a to encourage the long-term sustainable management of woodlands to produce forest crops and increase the likelihood of a stable forest economy. The law, known as the 480-a Forest Tax Law, provides property tax savings for landowners who enroll in the program. To be eligible, a forest tract must consist of at least 50 acres. The landowner must commit to follow a 10-year management plan prepared by a forester and approved by the New York State Department of Environmental Conservation (NYSDEC). The NYSORPS assigns the classification code “912” to parcels enrolled in the 480-a program. Based on review of the NYSORPS classification codes associated with the parcel data provided by Orleans and Genesee Counties, one parcel within the 5-mile Study Area is enrolled in the 480-a program; however, this parcel is not located within the Facility Site.

#### Conservation Programs

To determine the location of conservation program lands near the Facility Site, the Applicant reviewed the National Conservation Easement Database (NCED), an initiative of the U.S. Endowment for Forestry and Communities to compile records from land trusts and public agencies throughout the United States. This public-private partnership brings together national conservation groups, local and regional land trusts, and state and federal agencies. The NCED contains records of six conservation easements in Orleans County, three of which are within the 5-mile Study Area, and six conservation easements in Genesee County, none of which are within the 5-mile Study Area (see Figure 4-2). The closest of these conservation easements is located approximately 0.9 miles from the Facility Site. Information about the three conservation areas within the 5-mile Study Area per the NCED data base is provided in Table 4-3.

**Table 4-3. Conservation Easements within the 5-Mile Study Area**

ID	Type	Date	Town	Acres	Holder	Owner	Access	Distance from Facility Site (Mi)
1	WRP*	2006	Barre	15.12	NRCS**	Private	Closed	0.9
2	WRP*	1998	Barre	62.46	NRCS**	Private	Closed	2.65
3	WRP*	1997	Barre	3.37	NRCS**	Private	Closed	1.0

\* Wetlands Reserve Program

\*\* U.S. Natural Resource Conservation Service

Source: <https://www.conservationeasement.us>

Facility turbines may be visible from the conservation easements in and around the 5-mile Study Area. However, there will be no direct impacts to these lands or to the ecological functions and values protected by the easements. Also, access to these easements is closed, limiting the potential for viewing the Facility from the conservation easements.

(b) Transmission Facilities Map

Figure 4-3 illustrates existing overhead and underground major facilities for electric, gas, and telecommunication facilities in the 5-mile Study Area, along with proposed Facility components. There are several electric transmission lines that intersect the 5-mile Study Area. Electric transmission line routes were identified based on New York State Department of Public Service (NYSDPS) data and a review of 2015 aerial imagery which indicate the cleared rights-of-way and show only the Lockport-Mortimer 115 kV transmission line crossing the Facility Site. The nearest transmission line which does not intersect the Facility Site is approximately 1.9 miles to the south. In addition, there is one natural gas pipeline that intersects the 5-mile Study Area. This gas line is owned by Empire Pipeline Company and crosses the 5-mile Study Area approximately 2.2 miles from the Facility Site. Gas and oil well data were acquired from the NYSDEC Division of Mineral Resources; natural gas and petroleum product pipeline data were obtained from NYSDPS. Figure 4-3 also indicates locations of proposed crossings and adjacent components. See Exhibit 12 for additional utility crossing information.

Additional details regarding crossing or adjacent components are shown on the Preliminary Design Drawings appended to Exhibit 11. Details regarding setbacks relating to utilities and oil/gas wells are contained in Exhibit 6.

(c) Tax Parcel Map

Figure 4-4 illustrates existing boundaries of all parcels where Facility components will be located as well as those parcels within 2,000 feet of Facility components. This map shows current land use, tax parcel number, owner of record, and publicly known proposed land use changes as understood by the Applicant based on outreach conducted to date.

Parcel and land use data were obtained from the Orleans and Genesee County GIS Departments and through consultations with the Town of Barre.

(d) Zoning District Map

Zoning jurisdiction in Orleans County is at the city/town/village level. Figure 4-5 illustrates the zoning districts within the 5-mile Study Area, which includes the Town of Barre and parts of the nearby Towns of Albion, Murray, Clarendon, Shelby, Ridgway and Gaines, as well as the Villages of Albion and Holley, all located in Orleans County. The 5-mile Study Area also encompasses towns and villages within Genesee County including the Towns of Alabama, Byron, Elba, and Oakfield, as well as the Villages of Elba and Oakfield. Similarly, to Orleans County, zoning jurisdiction in Genesee County is at the city/town/village level. Summaries of the zoning ordinances for these towns and villages are presented in Appendix 4-A. These summaries describe permitted and prohibited uses in each zone for each town/village. The level of detail contained in these summaries varies based on the level of detail included in each municipality's zoning ordinance. See Exhibit 31 for additional details regarding zoning within the Facility Site.

(e) Comprehensive Plans

The Town of Barre adopted a Comprehensive Plan in December 2017 (Available at: <https://townofbarre.ny.com/>). In addition, Orleans County adopted a Comprehensive Plan in 1976. Each of these plans are reviewed below.

Town of Barre Comprehensive Plan

As stated in the Town of Barre's Comprehensive Plan, the purpose of the plan is to *"identify those activities and decisions that have the greatest effect on the community, and to decide whether significant changes are needed to adjust the course that the community is on."* The plan provides relevant background information and articulates a vision for the future by including the following elements:

- *"An evaluation of existing laws, plans and programs that influence community development and planning in the Town of Barre;*
- *An inventory of existing conditions, and evaluation of past trends and a projection of future Town needs;*
- *Analysis of the desirable characteristics, the potential opportunities and the significant problems or constraints that exist in the Town;*
- *A statement of the Town's policies;*
- *A new land use plan that presents a vision of the Town's desired development patterns over the next twenty years;*

- *A program of actions that would implement the goals and policies in the land use plan; and*
- *A strategy for maintaining the Plan over the next fifteen to twenty years.”*

Chapter 3 of the plan identifies development opportunities and constraints for various land uses and public services within the Town. This includes agriculture, in keeping with Barre’s strong farming tradition. The plan recognizes the State’s Agricultural District Program, which benefits farmers by providing certain land use protection and tax benefits. The plan also noted that other constraints to agriculture exist in the Town that continue to increase pressure on farmers to convert farmland to other uses.

In Chapter 4 of the plan, the Town establishes broad policy goals and specific recommended actions to help achieve those goals. For agriculture, the plan’s policy is to “*Encourage farming as the preferred land use in viable agricultural areas.*” With this policy, the plan lists six actions that the Town could take to strengthen farming enterprises in the Town. These include encouraging creative development designs on farms to maintain open space, innovative zoning techniques, and supporting Agricultural Districts and other efforts to reduce the tax burden on farmland. While these actions do not specifically address the co-location of wind energy with agriculture uses, co-location conforms to the goals and actions of this chapter because wind energy facilities are compatible with farming and provide an additional source of income, helping farmers maintain the viability of agricultural enterprises and retaining the Town’s rural character and open space resources. The Town’s Wind Energy Overlay District zone also supports the interests of agriculture and is consistent with this goal of the plan.

The Community Services and Facilities section of Chapter 4 of the town’s comprehensive plan includes Policy F: “*Consider Green Energy options for the Town*”. The plan recommends the following action: “*Study the Green Energy Options available which will not alter the natural and cultural resources outlined in Chapters 2 and 3.*” The proposed Facility is consistent with this policy. The Article 10 review process requires a thorough evaluation of a project’s overall benefits and impacts, including its impact on natural and cultural resources. If approved, the Facility would bring a renewable green energy source to the Town following a comprehensive review process and a determination that environmental and other impacts have been avoided, minimized or mitigated to the maximum extent practicable.

#### Orleans County Comprehensive Plan

The Orleans County Planning Board adopted a Comprehensive Plan in 1976 that has not been updated. As indicated in October 2019 correspondence between the Applicant and the County, the County considers the 1976 County Comprehensive Plan to be outdated, and consequently it is no longer used to guide County policy.

The County also prepared a Comprehensive Plan for Western Orleans in 2001 which was updated in 2003 and amended in 2018; however, this plan only covers the municipalities in the western portion of the County and does not include the Town of Barre or the Facility Site.

(f) Map of all Publicly Known Proposed Land Uses Within the Study Area

The Applicant has investigated proposed land uses within the Study Area via discussions with State and local planning officials (including inquiring about pending land use applications), open houses, the PIP implementation and preliminary scoping statement (PSS) development process, and other sources. No other specific proposed land uses were identified based on that investigation. In particular, no other proposed wind turbines were identified within the 5-mile Study Area.

(g) Map of Specially Designated Areas

Figure 4-7 illustrates specially designated areas, including inland waterways, agricultural districts, and special flood hazard areas within the 5-mile Study Area. Table 4-4 summarizes the sources of data used to prepare these maps and whether the type of area is found within the 5-mile Study Area.

**Table 4-4. Mapping of Specially Designated Areas**

Mapping Requirement	Data Source	Specially Designated Areas Present
Designated Coastal Areas	NYS GIS Clearinghouse, NYS Dept. of State (NYSDOS)	None
Inland Waterways	NYS GIS Clearinghouse, NYSDOS	See Figure 4-7
Local Waterfront Revitalization Program – Approved Plans	NYS GIS Clearinghouse, NYSDOS	None
Groundwater Management Zones	NYS GIS Clearinghouse	None
Agricultural Districts	Cornell Institute for Resource Information Sciences (IRIS)	See Figure 4-2 and 4-7
Special Flood Hazard Areas	NYS GIS Clearinghouse, Federal Emergency Management Agency (FEMA)	See Figure 4-7
NYS Open Space Conservation Plan – Priority Conservation Projects	NYSDEC	None
Critical Environmental Areas	NYSDEC	None

Special Flood Hazard Areas (SFHAs) are associated with several waterways and water bodies within the 5-mile Study Area (see Figure 4-7). No turbines or above ground components will be located within these SFHAs. However, there will be temporary ground disturbance and grading within the SFHAs associated with sections of access road and

collection line to two turbines (T8 and T16). The access roads are proposed to be constructed at grade per discussions with the New York State Department of Agriculture and Markets (NYSDAM). Therefore, there will be no displacement of flood storage capacity and no adverse impacts to SFHAs. There are no designated coastal areas, Local Waterfront Revitalization Program communities, groundwater management zones, priority conservation projects, or critical environmental areas in the 5-mile Study Area (NYSDEC, 2016a; NYSDEC, 2015; NYSDOS, 2012; NYSDOS, 2018).

Six Agricultural Districts are found in the 5-mile Study Area. Orleans County Agricultural Districts 1, 2, and 3 cover 40,317 acres of the Study Area. Genesee County Districts 2, 5, and 12 cover 29,709 acres of the Study Area (Cornell IRIS, 2017 and 2018). New York State Agriculture and Markets Law § 303b allows land to be added to agricultural districts through an annual process; however, land can only be removed from districts as part of a mandatory eight-year review. The next eight-year review for Orleans County Agricultural Districts is in August 2024. Genesee County is currently reviewing District 3; the next review of other districts in Genesee County is scheduled for 2021.

(h) Map of Recreational Areas and Other Sensitive Land Uses

Figure 4-8 illustrates recreation and other sensitive land uses known to the Applicant within the 5-mile Study Area. During the Phase 1B Archaeological Survey, archaeological sites were identified within the Facility Site; however, per National Historic Preservation Act § 304, 9 NYCRR § 427.8, and New York State Public Service Law § 15, the location of these sites are not disclosed in Figure 4-8. The location of these sites is confidential and will be included in reports provided to the New York State Office of Parks, Recreation and Historic Preservation only.

Table 4-5 summarizes the sources of data used to prepare these maps and identifies whether the land use is found within the 5-mile Study Area.

**Table 4-5. Mapping of Recreation and Sensitive Areas**

<b>Requirement</b>	<b>Source</b>	<b>Recreational and Sensitive Areas Present</b>
Wild, scenic and recreational river corridors	National Wild and Scenic Rivers System; National Rivers Inventory (National Park Service)	None
Open space	NYS GIS Clearinghouse and local governments	See Figure 4-8
Wildlife management lands	NYS GIS Clearinghouse, NYSDEC, U.S. Fish and Wildlife Service	None
Forest management lands	NYS GIS Clearinghouse, NYSDEC	See Figure 4-8
Conservation easement lands	National Conservation Easement Database; NYS GIS Clearinghouse	See Figure 4-8
State and federal scenic byways	New York State Department of Transportation; NYS GIS Clearinghouse	None

<b>Requirement</b>	<b>Source</b>	<b>Recreational and Sensitive Areas Present</b>
Nature preserves	NYS GIS Clearinghouse	See Figure 4-8
Designated trails, including NYS-mapped snowmobile trails, as publicly available	NYS GIS Clearinghouse and local governments	See Figure 4-8
Public-access fishing areas, camping areas	NYS GIS Clearinghouse, NYSDEC, Orleans County; Genesee County	See Figure 4-8
Oil and gas production	NYSDEC	None
Gas pipelines	S&P Global Platts, NYSDEC, NYSDPS	See Figure 4-8
Major communication and utility uses and infrastructure	NYSDEC, Evans	See Figure 4-8
Institutional, community and municipal uses and facilities	ESRI; TIGER/line files; NYS GIS Clearinghouse	See Figure 4-8

Appendix 24-A, the Facility’s Visual Impact Assessment (VIA), identifies visually sensitive resources, including recreational and other sensitive land uses that may be visually affected by the Facility. This assessment includes visually sensitive resources of potential statewide significance within 10 miles of the proposed Facility (i.e., the 10-mile Study Area), as well as a more detailed assessment (including potential locally significant resources) within the 5-mile Study Area. Aesthetic resources of statewide significance located within the 10-mile Study Area include: 53 sites listed on the National Register of Historic Places (NRHP); 1 National Wildlife Refuge (NWR) (Iroquois); 3 Wildlife Management Areas (WMAs) (Oak Orchard, Tonawanda, and John White); and 1 hiking trail of statewide significance (Canalway Trail). Aesthetic resources located in the 5-mile Study Area that may be regionally or locally significant include 4 villages (Albion, Elba, Holley, and Oakfield), various recreational trails, 2 golf courses, 3 local parks, 1 National Wildlife Refuge, 8 state highways; and various public schools.

The Facility will have no direct impact on the resources identified in Figure 4-8 (i.e., the resources will not be removed or physically modified in any way). The Facility’s potential effect on these resources could include a change in the visual setting resulting from the introduction of wind turbines. For more information regarding the anticipated visual impacts of the Facility and mitigation measures, see Section (i) below and Exhibit 24 of this Application.

Appendix 19-A, the Facility’s Preconstruction Noise Impact Assessment (PNIA), identifies sensitive sound receptors, which include residences (participating, non-participating, full-time, and seasonal), outdoor public facilities and areas, schools, hospitals, care centers, libraries, places of worship, cemeteries, public parks and public campgrounds, summer camps, and any historic resources listed or eligible for listing on the State or National Register of Historic Places, and federal and New York State lands. These sensitive sound receptors are mapped in Figure 19-1. For more information regarding the anticipated noise impacts of the Facility and mitigation measures, see Exhibit 19 of this Application.

(i) Compatibility of the Facility with Existing and Proposed Land Uses

General Compatibility with Existing Land Use

Based on the NYSORPS land classification system, the Facility Site consists of five distinct land use types. The majority of the Facility Site (approximately 77.0% in terms of acreage) is categorized as Agricultural, which is described as “property used for the production of crops or livestock.” Residential land constitutes approximately 20.1% of the Facility Site and is defined as “property used for human habitation.” Vacant land constitutes approximately 2.8% of the Facility Site and is described as “property that is not in use, is in temporary use, or lacks permanent improvement.” Table 4-6 summarizes land use impacts to each of these categories, based on the impact calculations detailed in Exhibit 22.

**Table 4-6. Land Use Impacts**

Land Use	Acres within the Facility Site	Temporary Impact (acres)	Permanent Impact (acres) <sup>1</sup>	Total Impact (acres)
Residential	1,129.1	69.9	6.8	76.7
Vacant	193.2	9.9	1.3	11.1
Agricultural	4,490.3	221.8	39.4	261.3
<b>Total</b>	<b>5,812.6</b>	<b>301.6</b>	<b>47.5</b>	<b>349.1</b>

<sup>1</sup> Permanent disturbance will only be for the life of the proposed Facility (i.e., approximately 30 years) unless repowered.

No substantial permanent changes in land use are anticipated because of Facility construction and operation, and no changes are predicted outside the Facility Site. The presence of the turbine bases, crane pads, access roads, substations, and the operation and maintenance (O&M) building will result in the cumulative conversion of approximately 47.5 acres—less than 1% of the Facility Site—from its current use to built facilities.<sup>1</sup> Additional impacts to land associated with Facility operation will be temporary, infrequent, and minimal. Aside from occasional maintenance and repair activities, Facility operation will not interfere with ongoing land use (e.g., farming and forestry activities).

Compliance with NYSDAM Wind Power Project Guidance for Components Sited on Agricultural Lands

NYSDAM has promulgated a guidance document that applies to wind power projects sited on agricultural lands. The *Guidelines for Agricultural Mitigation for Wind Power Projects* document includes siting goals, construction requirements, restoration requirements, and post-construction monitoring and remediation requirements. To minimize and/or mitigate impacts to active agricultural land and farming operations, Facility siting and construction will generally

<sup>1</sup> Note, this acreage is slightly larger than the total permanent impact acreage presented in Table 4-6 as it also includes several small areas that do not have assigned land use codes.

comply with NYSDAM agricultural protection guidelines to the maximum extent practicable (see Exhibit 22[q] for a full analysis of the impacts to agricultural land). In addition, the Applicant met with and conducted a site walk with representatives from the NYSDAM on October 9, 2019. There were a number of minor layout modifications suggested by NYSDAM to further avoid and/or minimize impacts to agricultural areas. At the October 9, 2019 meeting, NYSDAM supplied the Applicant with a series of written recommendations concerning possible changes to the Facility layout designed to decrease impacts to agricultural land (hereinafter “NYSDAM Recommendations”). The NYSDAM Recommendations are included as Appendix 4-A. The Applicant has worked to accept and apply a number of the NYSDAM Recommendations (e.g., shifting or consolidating access roads or collection lines), including a few notable changes listed below:

1. All access roads located in farm fields will be at grade to reduce impacts on farm equipment.
2. The access road between Turbine 1 and Turbine 2 has been relocated approximately 150 feet to the east to be located on the boundary of two distinct fields. (NYSDAM Recommendations, p. 1).
3. A temporary access road crossing the field diagonally to Turbine 8 will only be used during construction to allow large equipment deliveries. A permanent operations road will be located along the edge of the field as recommended by NYSDAM. (NYSDAM Recommendations, p. 4).
4. The access road to Turbine 7 has been relocated approximately 50 feet west to the edge of the existing hedgerow. (NYSDAM Recommendations, p. 5).
5. The permanent access road between Turbine 11 and Turbine 12 has been relocated east to the edge of the field. A temporary road has been added to the design to allow component deliveries. (NYSDAM Recommendations, p. 8).
6. Collection lines running west from Turbine 14 have been relocated north in an effort to reduce conflicts with existing drainage tiles. (NYSDAM Recommendations, p. 9).
7. The access road to Turbine 17 has been relocated to the north to avoid conflicts with drainage tiles and to run along the edge of the field (NYSDAM Recommendations, p. 10).
8. The access road to Turbine 20 has been relocated north to the edge of the field. A temporary construction road with wide turning radius will be utilized to allow component deliveries. (NYSDAM Recommendations, p. 14).
9. The access road to Turbine 29 and Turbine 33 has been relocated north to the edge of the field. A temporary construction road with wide turning radius will be utilized to allow component deliveries. (NYSDAM Recommendations, p. 20).
10. The access road to Turbine 31 has been relocated north to the edge of the field. (NYSDAM Recommendations, p. 21).

Other suggested layout modifications were not considered feasible as they may increase disturbance of other sensitive resources (e.g., NYSDEC-regulated areas adjacent to wetlands). As per typical NYSDAM requirements, the Applicant and/or Environmental Monitor (see Exhibit 22[n] for additional information pertaining to environmental monitoring) will consult with NYSDAM during construction if deviation from the NYSDAM wind guidelines is necessary. The following mitigation measures will be implemented to minimize impacts to agricultural land:

- Structures will be located along field edges and in nonagricultural areas where possible.<sup>2</sup>
- Roads that must cross agricultural fields will stay on ridge tops and other high ground, where feasible, to minimize cut and fill as well as potential drainage problems.
- Roads that must cross agricultural fields will be at existing grade where possible to reduce potential damage to farm equipment.
- Disturbance of surface and subsurface drainage features (ditches, diversions, tile lines, etc.) will be avoided where possible or appropriate measures will be taken to maintain the design and effectiveness of the existing structures.
- Topsoil from agricultural areas used for vehicle and equipment traffic and parking will be stripped and stockpiled separately from other excavated material.
- Vehicular access to turbine sites will be prohibited until topsoil has been stripped and permanent access roads have been constructed.
- Vehicular access will be limited to construction roads only.
- Vehicle and equipment traffic and parking will be limited to the access road and/or designated work areas such as tower sites and laydown areas. No vehicles or equipment will be allowed outside the work area without prior approval from the landowner and, when applicable, the Environmental Monitor.
- Blocking of surface water drainage due to road installation or stockpiled topsoil will be avoided.
- Farm access routes will be maintained throughout construction.
- Work areas in active pastureland will be temporarily fenced to protect livestock, consistent with landowner agreements.
- Excess concrete will not be buried or left on the surface of active agricultural areas.
- Concrete trucks will be washed as necessary outside of active agricultural areas in locations approved by the Environmental Monitor.
- Restored agricultural areas will be seeded with the seed mix specified by the landowner, in order to maintain consistency with the surrounding areas.

---

<sup>2</sup> The Applicant has coordinated with landowners to locate Facility components in mutually agreed upon locations. Additionally, efforts were made to avoid environmental (e.g., wetlands) and cultural resources where feasible.

- All construction debris will be disposed off-site at the completion of restoration.
- All excess subsoil and rock will be removed from the site. On site disposal of such material may be allowed if approved by the landowner and the Environmental Monitor, with appropriate consideration given to any possible agricultural or environmental impacts.

Following construction, subsoil decompaction will be implemented in accordance with the project plans and the Stormwater Pollution Prevention Plan (SWPPP), and in coordination with the landowner. The topsoil will be replaced to original depth and the original contours will be reestablished where possible. Impacts to surface and subsurface drainage features will be restored in accordance with commitments made to the landowner. No Facility restoration activities will occur in agricultural fields between the months of October through May unless favorable soil moisture conditions exist.

In addition to these measures, the Applicant will continue to consult with landowners and NYSDAM throughout the Article 10 process and during construction and operation of the Facility to ensure impacts to active agricultural land and farming operations are minimized and/or mitigated wherever practicable

#### Compatibility of Facility with Comprehensive and Regional Plans

The host Town has adopted a Comprehensive Plan, which is described Section (e) above. In addition, there are several local comprehensive plans for towns within 1 mile of the Facility Site that have issued comprehensive plans, including the Town/Village of Albion and the Towns of Byron, Clarendon, Murray, Elba, and Oakfield and Alabama (joint plan); the consistency of the Project with these plans is discussed in Table 4-7 below. Also, the Western Orleans Comprehensive Plan (most recently updated in 2018) serves as the planning document for multiple municipalities in the western part of the County including the Towns of Shelby, Ridgeway and Yates, and the Villages of Medina and Lyndonville. Finally, several state and regional organizations have issued plans, which are also discussed in Table 4-7 below. Links to the online locations of publicly available documents are provided in the table. In addition, electronic versions of these plans will be provided on the Heritage Wind website (<https://www.heritagewindpower.com>).

**Table 4-7. Facility Consistency with Comprehensive and Regional Planning Documents**

Plan	Relevant Goals and Objectives	Facility Consistencies	Facility Inconsistencies	Uniform Resource Locator (URL)
New York Open Space Conservation Plan (2016)	<ul style="list-style-type: none"> <li>- Maintain critical natural resource-based industries such as farming, forest products, commercial fishing and tourism.</li> <li>- Address global climate change (through various means).</li> <li>- Preserve, restore, and/or create a matrix of natural systems sufficiently complex and interconnected to be self-sustaining while performing the critical natural functions necessary to sustain us.</li> </ul>	<ul style="list-style-type: none"> <li>- Utilizes a renewable resource to generate electric power without contributing to global climate change.</li> <li>- Preserves agricultural character of Facility Site and limits the conversion of participating land to non-agricultural uses.</li> </ul>	None	<a href="https://on.ny.gov/2vGiA6W">https://on.ny.gov/2vGiA6W</a>
New York State Historic Preservation Plan (2015-2020)	<ul style="list-style-type: none"> <li>- Enhance collaboration to advance preservation.</li> <li>- Integrate preservation into local and regional decision making.</li> </ul>	<ul style="list-style-type: none"> <li>- Coordinated with New York State Office of Parks, Recreation and Historic Preservation to develop site-specific work plans.</li> <li>- Integrated design and field work to avoid impacts to cultural resources (see Exhibit 9)</li> </ul>	None	<a href="https://on.ny.gov/2BdDtLQ">https://on.ny.gov/2BdDtLQ</a>
Statewide Comprehensive Outdoor Recreation Plan (2014-2019)	<ul style="list-style-type: none"> <li>- Reconnect children and adults with nature and recreation by improving access to outdoor recreation opportunities.</li> <li>- Continue to develop a comprehensive, interconnected recreation-way, water trails, greenway and blueway trail system.</li> <li>- Continue efforts to restore, conserve and protect the biodiversity of state lands.</li> </ul>	<ul style="list-style-type: none"> <li>- Preserves agricultural character of Facility Site and limits the conversion of participating land to non-agricultural uses.</li> <li>- No direct impacts on known recreational resources.</li> </ul>	None	<a href="https://on.ny.gov/2nADAHX">https://on.ny.gov/2nADAHX</a>

Plan	Relevant Goals and Objectives	Facility Consistencies	Facility Inconsistencies	Uniform Resource Locator (URL)
New York State Office of Parks, Recreation and Historic Preservation Sustainability Plan (2009)	<ul style="list-style-type: none"> <li>- Advance a new agency-wide sustainability initiative to adopt green practices</li> <li>- Outline a plan to reduce impacts that the agency's daily activities have on natural resources</li> <li>- Adopted a goal of reducing greenhouse gases 30% by 2030</li> </ul>	<ul style="list-style-type: none"> <li>- The plan is primarily focused on internal agency operations. The Facility is aligned with the plan's stated goal of reducing greenhouse gases 30% by 2030.</li> </ul>	None	<a href="https://on.ny.gov/2MEzJ7G">https://on.ny.gov/2MEzJ7G</a>
Town and Village of Albion Comprehensive Plan (2013)	<ul style="list-style-type: none"> <li>- Encourage more environmentally friendly ("green") businesses</li> <li>- Manage the extension of infrastructure as appropriate to support and protect agricultural operations</li> </ul>	<ul style="list-style-type: none"> <li>- While the Facility is not in the Town or Village of Albion, the Facility is a "green" use that preserves agricultural character of Facility Site and limits the conversion of participating land to non-agricultural uses.</li> </ul>	None	<a href="https://villageofalbionny.com/Portals/0/Publications/Albion%20Comprehensive%20Plan%202013.pdf?ver=2016-10-24-124952-533">https://villageofalbionny.com/Portals/0/Publications/Albion%20Comprehensive%20Plan%202013.pdf?ver=2016-10-24-124952-533</a>
Oakfield-Alabama Comprehensive Plan	<ul style="list-style-type: none"> <li>- Protect and preserve agriculture in the Towns of Oakfield and Alabama</li> </ul>	<ul style="list-style-type: none"> <li>- While the Facility is not in the Towns of Oakfield or Alabama, the Facility preserves agricultural character of Facility Site and limits the conversion of participating land to non-agricultural uses consistent with the joint plan.</li> </ul>	None	<a href="http://townofakfieldny.com/comprehensive-plan/">http://townofakfieldny.com/comprehensive-plan/</a>

Plan	Relevant Goals and Objectives	Facility Consistencies	Facility Inconsistencies	Uniform Resource Locator (URL)
Town of Elba Comprehensive Plan	<ul style="list-style-type: none"> <li>- Protect and preserve the Town's agricultural resources</li> <li>- Adopt zoning regulations that allow landowners to place commercial wind towers on their property</li> </ul>	<ul style="list-style-type: none"> <li>- While the Facility is not in the Town of Elba, the Facility preserves agricultural character of Facility Site and limits the conversion of participating land to non-agricultural uses</li> <li>- Also, the comprehensive plan shows that the town is in favor of commercial wind energy</li> </ul>	None	<a href="http://elbanewyork.com/wp-content/uploads/2018/06/Comprehensive-Plan.pdf">http://elbanewyork.com/wp-content/uploads/2018/06/Comprehensive-Plan.pdf</a>
Town of Clarendon Comprehensive Master Plan 10 Year Update	<ul style="list-style-type: none"> <li>- To preserve and protect the agricultural and rural residential environment that currently exists in the town.</li> </ul>	<ul style="list-style-type: none"> <li>- While the Facility is not in the Town of Clarendon, the Facility preserves the agricultural character of Facility Site and limits the conversion of participating land to non-agricultural uses.</li> </ul>	None	<a href="https://townofclarendon.org/home/wp-content/uploads/2017/11/comprehensive-masterplan.pdf">https://townofclarendon.org/home/wp-content/uploads/2017/11/comprehensive-masterplan.pdf</a>
Town of Byron Comprehensive Plan	<ul style="list-style-type: none"> <li>- Preserve agricultural base – land and farm operations.</li> <li>- Maintaining the “rural character”.</li> <li>- Encourage green energy projects.</li> </ul>	<ul style="list-style-type: none"> <li>- While the Facility is not in the Town of Byron, it preserves the agricultural character of Facility Site and limits the conversion of participating land to non-agricultural uses. It also represents a green energy project.</li> </ul>	None	<a href="https://www.byronny.com/documents/BYRON-COMP-PLAN2019-Appendices.pdf">https://www.byronny.com/documents/BYRON-COMP-PLAN2019-Appendices.pdf</a>

Plan	Relevant Goals and Objectives	Facility Consistencies	Facility Inconsistencies	Uniform Resource Locator (URL)
Town of Murry Comprehensive Plan	<ul style="list-style-type: none"> <li>- Preserve and protect existing agricultural and rural residential environment</li> <li>- Promote and encourage the use of land and water resources that will meet the needs of the Town and future residents, while creating an attractive and healthy environment for the Town.</li> <li>- Make necessary community facilities, public services and recreational resources available to all residents.</li> <li>- Preserve and protect the natural features, natural resources, and historic features located within the Town.</li> </ul>	<p>- While the Facility is not in the Town of Murray, it preserves the agricultural character of Facility Site and limits the conversion of participating land to non-agricultural uses. The Project is a green energy project, and is consistent with a desire for a clean and healthy environment.</p>	None	<p><a href="#">Not publicly available</a></p>
Western Orleans Comprehensive Plan	<ul style="list-style-type: none"> <li>- Retain the rural character of the countryside.</li> <li>- Maintain the economic viability of agriculture.</li> <li>- Maintain agriculture as a means to preserve the rural landscape.</li> <li>- Encourage appropriate types of economic development that provide good paying jobs an infusion of money into the economy.</li> <li>- Manage large-scale industrial energy development to maximize benefits and minimize negative impacts.</li> </ul>	<p>- While the Facility is not in western Orleans County, it preserves the agricultural character of Facility Site and limits the conversion of participating land to non-agricultural uses. It also represents an economic benefit to the region and is designed to provide green energy with maximum benefits and minimal impacts.</p>	None	<p><a href="http://orleans.ny.com/Portals/0/Departments/Planning/FINAL%20FULL%20WOCP_1.pdf">http://orleans.ny.com/Portals/0/Departments/Planning/FINAL%20FULL%20WOCP_1.pdf</a></p>

Plan	Relevant Goals and Objectives	Facility Consistencies	Facility Inconsistencies	Uniform Resource Locator (URL)
Genesee County Comprehensive Plan	<ul style="list-style-type: none"> <li>- Agriculture should be encouraged to continue in large areas of the County</li> <li>- Technical assistance and other support should be provided to production agriculture and related businesses in order to retain a viable agricultural industry</li> </ul>	<ul style="list-style-type: none"> <li>- While the Facility is not in Genesee County, it preserves the agricultural character of Facility Site and limits the conversion of participating land to non-agricultural uses</li> <li>- The Facility will result in increased revenue for landowners (e.g., farmers) that would allow farming practices to continue.</li> </ul>	None	<a href="https://www.co.genesee.ny.us/docs/planning/GC_Comp_Plan.pdf">https://www.co.genesee.ny.us/docs/planning/GC_Comp_Plan.pdf</a>
Genesee County Agricultural and Farmland Protection Plan	<ul style="list-style-type: none"> <li>- Retain prime farmlands for agricultural use.</li> <li>- Continuously reinforce the value of farming as an economic activity.</li> </ul>	<ul style="list-style-type: none"> <li>- While the Facility is not in Genesee County, it preserves the agricultural character of Facility Site and limits the conversion of participating land to non-agricultural uses</li> <li>- The Facility will result in increased revenue for landowners (e.g., farmers) that would allow farming practices to continue.</li> </ul>	None	<a href="https://www.co.genesee.ny.us/docs/planning/GeneseeCountyAFPP2017.pdf">https://www.co.genesee.ny.us/docs/planning/GeneseeCountyAFPP2017.pdf</a>

Qualitative Assessment of Impacts to Land Use

The construction and operation of the Facility will result in certain unavoidable impacts that could affect land use. Most of these impacts will result from construction activities and will be temporary in nature. For example, although the Facility will not generate any unusual odors, there could be brief periods during construction where airborne dust levels could be elevated. Dust control procedures will be implemented to the extent necessary to minimize the amount of dust generated by construction activities in a manner consistent with the Standards and Specifications for Dust Control outlined in the *New York State Standards and Specifications for Erosion and Sediment Controls* (NYSDEC, 2016b, pp. 16-17). See Exhibit 12 for additional information on potential dust-related impacts and control measures. Also, the

Project may result in temporary impacts relating to stormwater discharges from the construction site. To address these impacts, the Applicant will develop and implement a SWPPP and otherwise comply with the requirements of NYSDEC's State Pollutant Discharge Elimination System General Permit for Stormwater Discharges from Construction Activities. See Exhibit 23(c) for an additional discussion of stormwater issues; a preliminary SWPPP can be found at Appendix 21-E.

During construction of the proposed Facility, there will be a temporary increase in truck traffic on area roadways. A Route Evaluation Study was prepared to evaluate existing transportation conditions near the Facility Site and identify probable local traffic routes, constraints, and proposed improvements (see Appendix 25-A) This study determined that local traffic may experience minor delays due to slow moving construction vehicles and increased traffic related to the construction activities. However, local traffic flow should not be significantly impacted because existing traffic volumes are already low. To minimize any delays to local traffic during the construction phase, the Applicant will coordinate with the State, the County, and local municipalities to respond to any locations that may experience any traffic flow or capacity issues. See Exhibits 19 and 25 of this Application for more detailed information on construction noise and traffic and transportation impacts from construction of the proposed Facility.

Long-term unavoidable impacts associated with operation and maintenance of the Facility are anticipated to be relatively limited, but will likely include turbine visibility, shadow flicker, and/or an increased level of sound at some receptor locations near the Facility Site, as well as very minor increases in traffic. Each of these impacts is discussed briefly below, with reference to the more detailed discussions found elsewhere in this Application.

The presence (i.e., visibility) of the turbines will likely result in a change in perceived land use from some viewpoints. The VIA (Appendix 24-A) identifies those locations within the 10-mile Study Area where there is potential for the proposed Facility to be seen from ground-level vantage points. According to Digital Surface Model (DSM) viewshed analysis, the screening of visibility provided by topography, structures, and vegetation block daytime views of the Facility from approximately 76.9% of the 10-mile Study Area (i.e., the Facility is likely to be visible from 23.1% of the 10-mile study area); however, areas of actual visibility are anticipated to be more limited than indicated by the DSM viewshed analysis, due to the slender profile of the turbines, the effects of distance, and the intermittent nature of the views within these population centers. Appendix 24-A also describes visibility impacts on the recreational and sensitive sites referenced in Table 4-7 above. The analysis presents the distance to the nearest turbine for each visually sensitive resource, along with results from the topographic and vegetation viewsheds, and identifies photographs taken from recreation sites and other sensitive areas during the field review.

A shadow flicker analysis has been prepared for the proposed Facility (see Appendix 15-A). This study indicates that approximately 87% of receptors are predicted to receive less than 30 hours of shadow flicker per year. Available studies show that shadow flicker does not result in adverse health impacts (see Exhibit 15 and 19). If shadow flicker is modeled to exceed 30 hours per year at a non-participating residence, the Applicant will pursue various mitigation options, including: 1) working with the homeowner to provide reasonable mitigation alternatives including, as appropriate, shades, blinds, awnings, or plantings to significantly reduce the number of hours of shadow flicker inside the home, 2) signing a good neighbor agreement to make the landowner a Project participant, or 3) investigating operational controls at appropriate wind turbines contributing to greater than 30 hours per year of shadow flicker. See Exhibits 15 and 24 of this Application for more detailed information on shadow flicker impacts near the Facility Site.

Background sound monitoring was conducted at 8 different monitoring sites near the Facility Site for two distinct periods (summer and winter) lasting at least 17 days each. Measured sound levels were variable, depending on the proximity to human activity and industry. The combined summer and winter equivalent average sound levels ranged from 46 to 64 dBA during the day and 39 to 59 dBA at night. The Facility is being designed to not exceed an  $L_{10eq}$  of 45 dBA outside non-participating permanent residences at night (averaged from 10:00 p.m. to 7:00 a.m.). This goal is consistent with federal guidelines and recent Article 10 proceedings, and is well below the level that can cause hearing impairment according to the World Health Organization (WHO), the U.S. Environmental Protection Agency, and the Occupational Safety and Health Administration. The 45 dBA goal considers human health, hearing loss, and quality-of-life concerns. Various mitigation measures, such as sound waivers, blade design modifications and operating turbines in noise reduced operation modes, will be incorporated into the Facility to ensure compliance with the applicable local noise standard and consistency with the Facility design sound goal. See Exhibit 19 of this Application for more detailed information on the existing sound levels in the area, the potential noise impacts from the proposed Facility during construction and operation, and the mitigation measures to be implemented to minimize such impacts.

With respect to traffic, once the Facility is commissioned and construction activities are officially concluded, traffic will be negligible and likely concentrated around the O&M building. None of the potential traffic impacts are expected to affect the use and enjoyment of the Facility Site and surrounding areas for the current and planned land uses. See Exhibit 25 of this Application for more detailed information on traffic and transportation impacts from operation of the proposed Facility.

#### Assessment of Nearby Land Uses of Particular Concern to Community

Land uses of concern to the community include residential areas, schools, civic facilities, recreational facilities, commercial areas, and open space. As no schools, civic facilities, or commercial areas will be located within one mile of Facility components, no impacts to these land uses are anticipated. No land classified as recreational by the

NYSORPS will be directly impacted by the Facility. Impacts to areas classified as residential by the NYSORPS will total 76.7 acres, of which 69.9 acres will be temporarily impacted (subject to restoration following construction) and 6.8 acres will be converted to built facilities.

(j) Compatibility of Above-Ground Interconnection with Existing and Proposed Land Uses

The proposed Facility will connect the collection and point of interconnection (POI) substations using less than 200 feet of aboveground transmission lines. Otherwise, the Applicant intends to install collection lines underground to the maximum extent practicable. The aboveground transmission lines will be located solely at a heavily developed section of the Facility Site (i.e., the substations) and so will have no significant environmental impact. The potential effects on visibility resulting from the short segment of overhead transmission line are described in Exhibit 24 and the VIA (Appendix 24-A).

(k) Compatibility of Underground Interconnections with Existing and Proposed Land Uses

The Facility will include approximately 37 miles of underground collection lines. A total of 1,561 acres will be located within 300 feet of the centerline of underground collection lines and related facilities, of which approximately 14.5 acres (0.9%) consists of public road rights-of-way that are not part of any parcel, and as such, have no NYSORPS land use code. Land use for the remaining 1,546.5 acres has been classified by the NYSORPS as follows: Residential, 285 acres (18%); Vacant Land, 96.5 acres (6%); Agriculture, 1,164 acres (75%); Commercial, 0.6 acres (.05%); and Community Services, 0.6 acres (.05%). Approximately 1,023 acres (65.5%) of the land within 300 feet of an underground collection line is currently enrolled in a NYS Certified Agricultural District. The Facility's proposed underground collection lines will not prohibit the continued use of the land for agricultural purposes.

The construction of buried interconnects will result in a temporary disturbance. As discussed in Section (i) above, in agricultural fields, construction will be generally be conducted in accordance with the NYSDAM *Guidelines for Agricultural Mitigation for Wind Power Projects*. Therefore, permanent land use impacts associated with underground interconnects are not anticipated. To minimize impacts in forested land, buried underground interconnects will be placed in areas of existing disturbance (e.g., existing forest logging roads) to the maximum extent practicable. Where impacts to important environmental resources are unavoidable (e.g., stream crossings), horizontal directional drilling or other appropriate construction techniques will be used to minimize impacts.

(l) Conformance with the Coastal Zone Management Act

The Facility Area is not located within a designated coastal area or in direct proximity of a designated inland waterway. Therefore, conformance with the Coastal Zone Management Act or the Waterfront Revitalization of Coastal Areas and Inland Waterways Act is not required.

(m) Aerial Photographs

Figure 4-9 contains aerial photographs within a 1-mile radius of the Facility. This mapping was prepared using 0.5-meter resolution natural color orthoimagery from the U.S. Department of Agriculture's (USDA) National Agriculture Imagery Program (NAIP) captured during the 2019 growing season.

(n) Aerial Photograph Overlays

Figure 4-9 illustrates the Facility components along with the proposed limits of vegetation and soils disturbance overlaid on 0.5-meter NAIP imagery captured in the 2019 growing season. These maps were created using ArcGIS software. Line symbols depict the centerlines of proposed access roads and electrical collection lines; point symbols depict turbine and permanent meteorological tower locations; and polygon symbols depict substations, the O&M building, and construction laydown areas.

(o) Source of Aerial Photographs

As previously noted, Figure 4-9 was prepared using 0.5-meter resolution natural color orthoimagery from the USDA's NAIP captured during the 2019 growing season.

(p) Community Character

The proposed Facility will be in a rural portion of Orleans County that is characterized by a mix of agricultural and forested land, interspersed with rural residences. According to the *Orleans County Consolidated Agricultural District No. 1*, agriculture in Orleans County comprises approximately 79,003 acres of land, or approximately 68.4% of the county's land mass. Approximately 64 parcels have recently opted for exclusion from Agricultural Districts in Orleans County. These losses are thought to be due in part to uncertainty about the future of the agricultural industry, the cost-benefit relationship of owning land in an agricultural district, and/or the perception that as long as other portions of the municipality are in an agricultural district, there will be a benefit to all farmers regarding local laws. The 5-mile Study Area has a comparable proportion of active farmland when compared to the rest of Genesee and Orleans Counties.

The proposed Facility is consistent with the rural forested and agricultural character of the surrounding community. Approximately 3,892 acres of the approximately 5,813-acre Facility Site are enrolled as NYSDAM certified agricultural districts. The Facility will permanently disturb 39 acres (approximately 1%) of agricultural district land within the Facility Site. Although this land will be taken out of agricultural use, lease payments paid to participating farmers will improve the long-term economic viability of those farms. These payments will likely have indirect positive effects on the agricultural character of the community by increasing farm profitability and thereby preserving normal farm operations.

The operation of wind turbines and other Facility components will have noise impacts (see Exhibit 19 and Appendix 19-A); however, these impacts should not affect the character of the community. Operational noise levels of the Facility will comply with applicable local noise standards and WHO guidelines as outlined in Section (i) above. In addition, the Facility has been designed to avoid and minimize noise impacts by adhering to established setbacks (see Exhibit 6 for a further discussion of setbacks).

The Town of Barre's zoning regulations were amended in 2007 with the adoption of Article XI Wind Energy Overlay Zone. As stated in Section 350-95 of the Zoning Ordinance:

*The purpose of these supplemental requirements and standards is to regulate the development of a wind energy conversion project (wind turbines) and related structures in the Town of Barre. This article is to be consistent with the general purposes stated in the Comprehensive Plan of the Town, to accommodate the necessary infrastructure for the provision of commercial wind powered electricity generation facilities so that they may be developed in a manner hereby deemed to be compatible with the general health, welfare and safety of the residents of the Town of Barre. Furthermore, this article is enacted to address the visual, aesthetic and the land use compatibility aspects of wind energy conversion units, and more specifically to:*

- A. *Encourage the location of wind energy conversion units in areas where adverse impacts on the community are minimized.*
- B. *Encourage the configuration of wind energy conversion units in a way that minimizes adverse visual impact of the towers.*
- C. *Encourage the co-location or shared use of proposed and existing wind energy conversion unit sites.*

This law reflects a determination by the Town that wind energy facilities that meet the Town standards are compatible with existing community character.

Photographs depicting the nature and appearance of the defining features of the Facility Area are provided in the Exhibit 24 and the VIA (Appendix 24-A). The Facility will introduce new visual elements (i.e., wind turbines) into the

existing landscape, which could be considered a change in community character for the primarily rural residential areas that surround the Facility Site. However, the visibility and visual impact of the wind turbines will be highly variable based on distance, number of turbines in the view, weather conditions, sun angle, extent of visual screening from topography and vegetation, scenic quality, viewer sensitivity, and/or existing land uses. See Section (i) of this Exhibit, Exhibit 24, and Appendix 24-A for a further discussion of visual impacts.

Avoidance or mitigation measures that will minimize adverse impacts on community character include but are not limited to the following:

- Siting the Facility away from population centers and areas of residential development.
- Locating access roads and turbines to avoid or minimize disturbance of agricultural land, wetlands, streams, and cultural/historic resources.
- Using existing roads for turbine access whenever possible to minimize disturbance to agricultural land, wildlife habitat, wetlands, streams, and forests.
- Burying electrical interconnection lines between turbines to the maximum extent practicable.
- Implementing agricultural protection measures to avoid, minimize, or mitigate impacts on agricultural land and farm operations.
- Working with the New York State historic preservation office to determine and implement, as needed, mitigation measures for historic resources.
- Consulting with various stakeholders to identify visually-sensitive resources and incorporating questions and concerns.
- Complying with the Town's substantive laws regarding the construction and operation of the Facility.

There are numerous Facility-specific studies attached to this Application, such as a Visual Impact Assessment (see Appendix 24-A), Noise Impact Assessment (see Appendix 19-A), Cultural Resources Studies (see Appendices 20-A through 20-E), and a Shadow Flicker Assessment (see Appendix 15-A). In addition to evaluating potential effects on their respective resources, these studies can also be used to evaluate the Facility's potential effects on community character. See also Exhibit 25 of this Application for a discussion of Facility impacts on transportation, including any effect land use may have on local airstrips and heliports. These exhibits also outline the various mitigation measures that are being implemented to minimize and avoid impacts on the environment and the community where the Facility is proposed.

## REFERENCES

- Cornell Institute for Resource Information Sciences, 2017. *Agricultural Districts, Orleans County*. Available at: <http://cugir.mannlib.cornell.edu/datatheme.jsp?id=2> (Accessed July 2019).
- Cornell Institute for Resource Information Sciences, 2018. *Agricultural Districts, Genesee County*. Available at: <http://cugir.mannlib.cornell.edu/datatheme.jsp?id=2> (Accessed July 2019).
- New York State Department of Environmental Conservation (NYSDEC). 2015. *Critical Environmental Areas in New York State*. Available at: [https://gis.ny.gov/gisdata/fileserver/?DSID=1330&file=Critical\\_Env\\_Areas\\_20160708.zip](https://gis.ny.gov/gisdata/fileserver/?DSID=1330&file=Critical_Env_Areas_20160708.zip) (Accessed June, 2018).
- New York State Department of Environmental Conservation (NYSDEC). 2016a. *New York State Open Space Conservation Plan*. Available at: [https://www.dec.ny.gov/docs/lands\\_forests\\_pdf/osp2016final1.pdf](https://www.dec.ny.gov/docs/lands_forests_pdf/osp2016final1.pdf) (Accessed June, 2018).
- New York State Department of Environmental Conservation (NYSDEC). 2016b. *New York State Standards and Specifications for Erosion and Sediment Control*. Available at: [https://www.dec.ny.gov/docs/water\\_pdf/2016nysstanec.pdf](https://www.dec.ny.gov/docs/water_pdf/2016nysstanec.pdf) (Accessed June 2018).
- New York State Department of State (NYS DOS). 2012. *Environmental Protection Fund Local Waterfront Revitalization Program List of Coastal Waterbodies and Designated Inland Waterways*. Available at: [https://www.dos.ny.gov/opd/programs/pdfs/WaterwaysList\\_07-12.pdf](https://www.dos.ny.gov/opd/programs/pdfs/WaterwaysList_07-12.pdf) (Accessed April 2018).
- NYS DOS. 2018. *Local Waterfront Revitalization Programs*. Available at: [https://www.dos.ny.gov/opd/programs/WFRevitalization/LWRP\\_status.html](https://www.dos.ny.gov/opd/programs/WFRevitalization/LWRP_status.html) (Accessed June, 2018).
- Orleans County. 2016. *Orleans County Consolidated Agricultural District No. 1*. Prepared by Orleans County Department of Planning and Development. August 16, 2016.
- Town of Albion. 2013. *Village and Town of Albion Comprehensive Plan*. January 2013.
- Town of Barre. 2017. *Barre Comprehensive Plan*. Adopted December 13, 2017.
- Town of Elba. *Comprehensive Plan: Town of Elba*. Last Revised May 2007.
- Town of Yates, Lead Agency. *Western Orleans Comprehensive Plan*. Amended 2018. [http://orleansny.com/Portals/0/Departments/Planning/FINAL%20FULL%20WOCP\\_1.pdf](http://orleansny.com/Portals/0/Departments/Planning/FINAL%20FULL%20WOCP_1.pdf) (Accessed December 10, 2019).