Morris Ridge Solar Energy Center

Case No. 18-F-0440

1001.4 Exhibit 4

Land Use

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EXHIBIT 4 LAND USE

In order to develop a viable utility-scale solar energy facility, a given site must fulfill a number of siting requirements. In addition to having adequate solar resource characteristics, it is vital that a potential site have willing landowners, a straightforward means of connecting to the electrical transmission grid, ease of transportation access, a general lack of sensitive resources, and it is helpful to have a receptive host community. In addition, ideal utility-scale solar sites have many large, relatively flat parcels of mostly cleared land. These characteristics are necessary to maximize solar resource use and to accommodate arrays of photovoltaic (PV) panels while minimizing grading and other substantial alterations to the landscape. Furthermore, non-forested lands are preferable, as substantial tree clearing (and associated impacts to wildlife habitat and forested wetlands) can be avoided. All these factors and land use characteristics are essential for a site to be considered feasible, as opposed to merely suitable,[1] for a utility-scale solar energy facility.

The proposed Facility Site represents an ideal balance of the above-mentioned siting criteria. Despite the significant amount of undeveloped land in upstate New York, there are limited sites for utility-scale solar development that meet the siting criteria listed above. The Facility Site is located within the Town of Mount Morris, Livingston County, New York on the relatively flat, cleared lands of the Allegheny Plateau starting approximately a quarter mile east of Letchworth State Park. The Facility Site is bisected by 115 kV and 230 kV electric transmission lines owned by New York State Electric and Gas Corporation (NYSEG), which reduces potential interconnection costs and the possibility of further environmental impacts from transmission line construction.

The landform of the Facility Site offers a flat plateau with gentle slopes ideal for hosting PV panels. Approximately 78% of land within the Facility Site has historically been used for agricultural purposes. Forested areas are limited to streams, hills, hedgerows, and a limited number of woodlots. In addition, the Facility Site contains few significant wetland communities and no areas of designated statewide significance or high environmental sensitivity. The majority of the Facility Site will be located on parcels of farmland in an area that has and continues to experience a challenging agricultural economy. For the landowners who are participating in the project, the Facility will provide a stable and recurring revenue stream for many years. In addition, many of the participating landowners plan to maintain existing agricultural activities on the portions of their properties that are not proposed for development. Therefore, although the Facility will remove some areas from active agricultural use, as further described in Section (q) below, the economic stimulus provided by the Facility will help to ensure long-term agricultural viability in the region.

[1] Utility-scale renewable energy projects in New York State are competitive and the factors outlined above interact to govern the potential success of a given project. As discussed further in Exhibit 9, there are likely numerous sites throughout the State that are technically suitable for solar energy development. However, these sites may lack certain specific characteristics necessary for successful development. The proposed Facility has been designed to carefully balance the characteristics outlined above and is both suitable and feasible.

According to the New York State Office of Real Property Services (NYSORPS) classification codes, land use within Livingston County is dominated by agriculture (52.7%), residential land (25.2%), and vacant land (12%) (NYSORPS, 2017). There are approximately 206,474 acres of agricultural land within the County, of which 50.5% occurs as vacant farmland, 34.9% is used for field crops, 9.1% is used for dairy farming, 2% is used for cattle farming, and 1.3% is used for sheep (NYSORPS, 2017).

Of the approximately 3,332 acres that comprise the Facility Site, 1,928 acres (57.9%) are classified as vacant farm land, 929 acres (27.9%) are used for field crops, 172 acres (5.2%) are used for cattle farms, 99 acres (3%) are classified as rural residential, 32 acres (1%) are classified as rural residential with greater than 10 acres of agriculture, 32 acres (1%) are classified as residential vacant land over 10 acres, 5 acres (0.1%) are classified as other storage, warehouse and distribution facilities, 3 acres (0.1%) are classified as rural vacant lots smaller than 10 acres, and the remaining 3 acres (0.1%) are classified as residential vacant land (NYSORPS, 2017).

(a) Map of Existing Land Uses

NYSORPS Land Use Classification

Figure 4-1 shows existing land uses for all parcels within and adjacent to the Facility Site. This map was prepared using publicly available data from the Livingston County Real Property Tax Department and the classification codes of the New York State Office of Real Property Services (NYSORPS). The following property type classification codes occur within and adjacent to the Facility Site:[2]

- 100 – Agricultural
- 200 – Residential
- 300 – Vacant Land
- 400 – Commercial
- 500 – Recreation and Entertainment
- 600 – Community Services
- 700 – Industrial
- 800 – Public Services
- 900 – Wild, Forested, Conservation Lands and Public Parks.

[2] Note: each of the primary land use classes listed below has multiple sub-classes. For example, property type classification code 105 is defined as "Agricultural Vacant Land (Productive)."

Vacant Land

The NYSORPS has classified approximately 1,967 acres (59%) within the Facility Site as Vacant Land (i.e., property class 105 and all 300-level property classes). Property class 105 is productive agricultural vacant land and is defined as, "land used as part of an operating farm. It does not have living accommodations and cannot be related to any other agricultural category. It is usually found when an operating farm is made up of a number of contiguous parcels." The 300-level property class defines the remainder of vacant land as, "property that is not in use, is in temporary use, or lacks permanent improvement".

The USDA National Agricultural Statistics Service (NASS) Cropland Data Layer (USDA, 2019) tracks agricultural land use across the United States. Table 4-1 summarizes USDA NASS cropland data layer classifications for all land within the Facility Site classified by NYSORPS as Vacant Land.[3]

Table 4-1. USDA NASS Cropland Data Layer Classification of Land Identified as Vacant by the NYSORPS within the Facility Site

Land Classification	Area (acres)	Percent of total (%)
Corn	722.1	36.7
Soybeans	370.5	18.8
Winter Wheat	55.4	2.8
Rye	0.2	0.01
Oats	2	0.1
Alfalfa	537.5	27.3
Other Hay/Non-Alfalfa	17.8	0.9
Peas	0.4	0.02
Clover/Wildflower	1.6	0.1
Fallow/Idle Cropland	44	2.2
Apples	0.4	0.02
Grapes	0.4	0.02
Open Water	0.2	0.01
Developed/Open Space	34	1.7
Developed/Low Intensity	7.6	0.4
Deciduous Forest	139.9	7.1
Mixed Forest	5.6	0.3
Shrubland	0.4	0.02
Grass/Pasture	22	1.1
Woody Wetlands	4.2	0.2
Herbaceous Wetlands	0.7	0.04
Total	**1966.9**	**100%**

Source: USDA NASS Cropland Data Layer (2019)

[3] Note: The USDA NASS Cropland Data Layer exists as a raster dataset and NYSORPS data exists as a vector dataset. The conversion of the Cropland Data Layer resulted in some acreage calculation differences between the data sources

In addition, the Applicant has consulted with the landowners of parcels that comprise the Facility Site to obtain more specific information on current agricultural use within the Facility Site. The top agricultural use within the Facility Site is growing field crops. 92% of landowners that have active agricultural on their land stated they grow field crops and the remaining 8% categorizing the use as "Active Agriculture - Other".

Conservation Programs

To determine the location of conservation program lands in the vicinity of 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. There is only one conservation easement within the 2-mile Study Area (see Figure 4-2). This conservation easement is located outside the Facility Site and is held by the U.S. Natural Resources Conservation Service as part of the Wetlands Reserve Program and does not have public access. As this easement is located outside the Facility Site, there will be no direct impacts to this easement or the wetland functions and values it protects.

480-a Forest Tax Law

In 1974, the State of New York enacted New York Real Property Tax Law Section 480-a 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 contiguous acres. The landowner must commit to follow a management plan prepared by a forester and approved by the New York State Department of Environmental Conservation (NYSDEC, 2019a) for the next succeeding ten years. The management plan must identify scheduled commercial harvests, noncommercial thinning of forest stands, road construction, and other management practices, and include a schedule that shows the work to be done each year. Failure to adhere to the annual commitment in the work schedule of the management plan will result in revocation of the certificate of approval by the NYSDEC, and the imposition of penalty or roll-back taxes by the county (NYSDEC, 2019a). 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 for Livingston County, there are no parcels enrolled in the 480-a program within the Facility Site; however, two parcels within the 2-mile Study Area that are enrolled in the 480-a program were identified in the Livingston County parcel data.

As a follow-up to this initial analysis, the Applicant reviewed the 2019 Final Assessment Roll for the Town of Mount Morris and found four properties[4] enrolled in the 480-a forestry program within the 2-mile Study Area. As shown in Figure 4-2 these parcels are outside the Facility Site and will not be impacted by the Facility.

New York State Agricultural Districts

State-certified Agricultural Districts cover most of the land within the Town of Mount Morris and surrounding towns. Approximately 3,124 acres (95%) of the Facility Site are 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 within and adjacent to the Facility Site. The purpose of agricultural districting is to encourage the continued use of farmland for agricultural production by providing a framework to limit local regulation on farm practices, modify public agencies' ability to acquire land through eminent domain, modify the right to advance public funds to construct facilities that encourage development, require state agencies to modify regulations to encourage farming, and to provide Right to Farm provisions for protection from private nuisance suits. The Agricultural Districts Law also allows reduced property tax bills for land in agricultural production by limiting the property tax assessment of such land to its prescribed agricultural assessment value. Depending on the design and construction plans, projects such as the Facility can be consistent with and supportive of agricultural land uses and districts, and allow continued use of farmland for agricultural production during operations (e.g., through sheep grazing, beekeeping, or other compatible practices), and/or allow the site to return to prior agricultural use following decommissioning. A discussion of the Facility's compatibility with existing and proposed land uses is provided in Section (i), and a discussion on how the Facility impacts the eligibility of parcels to retain agricultural assessments and contributes to agricultural viability more broadly is provided in Section (q).

(b) Transmission Facilities Map

Figure 4-3 illustrates existing overhead and underground major facilities for electric, gas, and telecommunications within a 2-mile radius of the Facility Site along with proposed Facility components. No gas or hazardous liquid pipelines are location within or adjacent to the Facility Site. According to the database maintained by the NYSDEC Division of Mineral Resources, there are no natural gas or oil wells within the Facility Site. The nearest oil or gas well is located 0.35 miles from the Facility Site (NYSDEC, 2019a). In addition, based on the various on-site studies and surveys that have been conducted by the Applicant and its representatives, no oil or gas wells were observed within the Facility Site. Overhead transmission lines within the Facility Site have been discussed previously and are shown in Figure 4-3. Additional details regarding crossing or adjacent components are shown on the Preliminary Site Plan Drawings (Appendix 11-A).

[4] Parcels 133.-1-35.7, 158.-1-15.11, 158.-1-9.11, and 158.-1-37.

(c) Tax Parcel Map

Figure 4-4 illustrates existing boundaries of parcels where Facility components will be located, and the boundaries of those parcels adjoining such properties. This map shows current land use, tax parcel number, and owner of record of each property, and any publicly known proposed land use plans for any of these parcels. Parcel and land use data were obtained from Livingston County, the host Town of Mount Morris, and the adjacent Town of Groveland, as applicable.

(d) Zoning District Map

Zoning jurisdiction in Livingston County is at the town and village level. Figure 4-5 illustrates existing and proposed zoning districts within a 2-mile radius of the Facility. A description of the permitted and prohibited uses within each zone is described below, based on data obtained from local governments. The Applicant has reviewed the zoning regulations for each of the six towns and one village within the 2-mile Study Area: Mount Morris (Town), Groveland (Town), Leicester (Town), Nunda (Town), West Sparta (Town), Mount Morris (Village), and Castile (Town in Wyoming County). A summary of each municipality's zoning regulations is presented below, with a focus on the permitted and prohibited uses of those zoning districts located within the Facility Site. Note that the level of detail in these summaries varies based on the level of detail included in each municipality's zoning regulations. See Exhibit 31 for additional details regarding zoning within the Facility Site.

Town of Mount Morris

The Town of Mount Morris zoning regulations are found in Chapter 48 of the Town Code. The zoning districts and map were most recently amended in 2016. The Town Code establishes the following districts: L.R. (Low Density Residential), H.R. (High Density Residential), B-1 (Business District), B-2 (Business District), R.C.P.O. District (Residential, Commercial, Professional Office District), I (Industrial District). The code also contains a Land Conservation Overlay Zone.

The Facility Site is comprised of parcels that are primarily located within the L.R. zoning district. Small portions of the Facility Site are also located in the H.R. and Land Conservation zoning districts.

Uses permitted in the L.R. and H.R. zoning districts[5] include the following:

- Single-family dwellings and customary accessory uses.

[5] Uses and special uses permitted in the H.R. Zoning District are the same as those permitted for the L.R. Zoning District.

- Farms and customary accessory uses, including no more than one mobile home permitted by special use permit.
- Planned unit developments (PUD) subject to special requirements.
- Home occupation uses such as hairdressing, laundering, television and radio repair, lawn mower and bicycle repair and other uses which the Board of Appeals may determine to be similar in nature.
- Professional home offices such as a doctor, dentist, lawyer, architect, surveyor, accountant, broker, and other professions which the Board of Appeals may determine to be eligible for establishing an office in conjunction with the home.
- Seasonal roadside business stands for the sale of produce grown on the premises.
- Signs, in accordance with Article VII of the Zoning Code.
- Parking, in accordance with Article VI of the Zoning Code.
- Individual mobile homes when they are placed on a lot in an approved mobile home subdivision plot of 25 or more lots.

Special Permitted Uses in the L.R. and H.R. zoning districts include the following:

- Mobile home parks
- Hospitals, nursing homes or health-related facilities
- Public utility facilities
- Campgrounds
- Parks, playgrounds, athletic fields, golf courses, riding academies, game preserves and recreational uses where structures or vehicles are parked or erected for more than 14 days
- Public and semipublic uses, such as libraries, museums, schools, clubs, cemeteries, or similar types of uses
- Excavation operations
- Airstrips
- Auto repair shops subject to restrictions

In addition, the Mount Morris Solar Farm Law (Mount Morris Town Code § 48-44.3, Solar Farm Law; as amended by Local Law 3 of 2018; as further amended by Local Law 1 of 2019), which has been incorporated into the Zoning Code, provides that Solar Farms are allowed in all zoning districts as a special use.

The Land Conservation Zoning District is intended to delineate and protect areas in the town where substantial development of the land including buildings or structures may cause ecological harm or result in creating a public health or safety problem because of special or unusual conditions of the land, or the lack of proper facilities or

improvements resulting in the land not being suitable for development. If a property is found to be located completely or partially within one or more of the mapped conservation areas or bordering thereon, the Zoning Office shall accompany the landowner to the site to confirm the exact location and existing physical conditions. Special permit approval by the Town Board of Appeals shall be required for any proposed use which the Zoning Office finds fits one or more of the following categories:

- Proposed construction might result in the removal of a substantial number of healthy trees measuring 30 feet or more in height
- Proposed construction would require the filling in or draining of a natural, normally year-round swamp, marsh, or otherwise wet area of approximately one acre or more
- The average slope of the proposed building site is 15% or over
- The proposed building site is situated in a floodplain delineated on a map and based on a fifty-year flood frequency established by the Army Corps of Engineers
- The proposed building site is situated in an identified prime agricultural area which is being actively used for agricultural purposes
- The proposed building site is within 100 feet of the edge of the bank of a creek [flowing on the average of six months a year], river or a lake which may flow into a creek
- The proposed building site is situated within 200 feet of an identified historical, geological, or archaeological site which has been mapped for this purpose
- The proposed building site is situated on property which affords a major scenic overlook or portion thereof which has been identified and mapped for this purpose

Although the Facility Site does include land in this district, no actual construction is proposed within the Land Conservation District.

In 2016 the Town adopted a Solar Farm Law (L.L No. 1-2016, as amended by L.L. No. 2-2017; L.L. No. 3-2018; and L.L. No. 1 of 2019). The amended law states that solar farms are allowed in all zoning districts of the Town but are not a permitted use on prime farmland if the Town has an approved Agricultural and Farmland Protection Plan. In the absence of Article 10, solar farms are fully subject to the Town's Site Plan Review process. All projects must meet minimum requirements and conditions laid out in the Town Zoning Code (48-44.3.E and F), unless otherwise waived by the Siting Board under Article 10.

The Mount Morris Zoning Code also includes regulations for providing decommissioning securities for solar farms. The Applicant is committed to conforming with the requirements the Town of Mount Morris zoning code for decommissioning. See Exhibit 29 for additional information.

Town of Groveland

The zoning regulations in the Town of Groveland are provided in The Zoning Ordinance for the Town of Groveland, which was adopted by the Town Board in 1966. This zoning established the following districts in the Town: A (Agricultural Use Districts), R (Residential use Districts), A-I (Agricultural-Industrial Use Districts), LSR (Conesus Lake Shore Residential Use Districts), LR (Conesus Lake Residential Use Districts), W-R (Watershed & Reservoir Use Districts).

Permitted uses in these zoning districts are generally similar to those established for the Town of Mount Morris and other adjacent municipalities. Electric generating facilities or similar utilities are not specifically permitted or prohibited in the Town zoning code.

No Facility components are proposed within the Town of Groveland and no direct impacts to the Town or any zoning district are anticipated.[6] Therefore, the Facility is in compliance with the Town of Groveland's zoning regulations.

Town of Leicester

The Zoning regulations in the Town of Leicester are provided in the Zoning Ordinance of the Town of Leicester, which was adopted by the Town Board in 1968, revised in 1990, and amended in 2019. This zoning established the following districts in the Town: A, (Agricultural Use Districts), R Residential Use Districts), B-1 and B-2 (Business Use Districts), I (Industrial Use Districts), and R0C (Recreational Commercial Use Districts). The 2019 amendment to this ordinance established provisions specific to solar energy systems such as the Facility.

Under the Town of Leicester's zoning ordinances, the proposed Facility would be defined as a Type 2 Solar Energy System. Type 2 Solar Energy Systems are identified as a use permitted in Agricultural Districts with a special permit, provided the proposed solar energy system complies with the substantive provisions outlined in the amended ordinance.

No Facility components are proposed within the Town of Leicester and no direct impacts to the Town or any zoning district are anticipated. Therefore, the Facility is in compliance with the Town of Leicester's zoning regulations.

Town of Nunda

The Zoning regulations in the Town of Nunda are provided in the Zoning Law of the Town and Village of Nunda. The law was enacted in 2005 and updated in 2016. This zoning established the following districts in the Town and Village:

[6] Exhibit 24 discusses the Facility's visual (i.e., indirect) impacts to municipalities in the vicinity of the Facility Site.

AG/C (Agricultural/Conservation District), NTD (Neighborhood Transitional District), MU (Mixed Use District), NRD (Neighborhood Residential District), H-NRD (Hamlet Neighborhood Residential District), V-NRD (Village-Neighborhood residential District), V-NTD (Village-Neighborhood Transitional District), and V-MU (Village Mixed Use District).

Permitted uses in these zoning districts are generally similar to those established for the Town of Mount Morris and other adjacent municipalities. Energy-distribution facilities are mentioned in the Town zoning code. However, the Town zoning code does not specifically identify such facilities as either prohibited or permitted uses in any of the aforementioned zoning districts.

No Facility components are proposed within the Town of Village of Nunda and no direct impacts to the Town or Village or any zoning district are anticipated. Therefore, the Facility is in compliance with the Town or Village of Nunda's zoning regulations.

Town of West Sparta

The zoning regulations in the Town of West Sparta are provided in the Land Development Code of the Town of West Sparta, New York. The code was adopted in 2005 with an issue date of September 2002. It was updated in 2012 and amended in 2013. This zoning established the following districts in the Town: A/R (Agricultural/Residential), M (Mixed Use-Hamlet) and F (Flood Hazard).

Permitted uses in these zoning districts are generally similar to those established for the Town of Mount Morris and other adjacent municipalities. Public utilities are identified as a use permitted with a special use permit in all the established zoning districts.

No Facility components are proposed within the Town of West Sparta and no direct impacts to the Town or any zoning district are anticipated. Therefore, the Facility is in compliance with the Town of West Sparta's zoning regulations.

Village of Mount Morris

The zoning regulations in the Village of Mount Morris are provided in Chapter 232 of the Village Code. Chapter 232 was adopted by the Board of Trustees of the Village of Mount Morris in September 1997. This zoning ordinance established the following districts in the Town: R-1 (Single Family Residence District), R-2 (Two-Family Residence District), R-3 (Multifamily Residence District), B-1 (Local Business District), B-2 (Central Business District), B-3 (General and Highway Business District), I (Industrial District), MH (Mobile Home District), AG (Agricultural District).

Permitted uses in these zoning districts are generally similar to those established for the Town of Mount Morris and

other adjacent municipalities. Public utilities are identified as a use permitted with a special use permit in all the established zoning districts.

No Facility components are proposed within the Village of Mount Morris and no direct impacts to the Village or any zoning district are anticipated. Therefore, the Facility is in compliance with the Village of Mount Morris's zoning regulations.

Town of Castile

The zoning regulations in the Town of Castile are provided in the Castile-Perry Planning Area Land Use Law adopted in 1993 (Common ordinance between Village of Perry and Town and Village of Castile). This zoning ordinance established the following districts in the Planning Area: Rural Agricultural (RA), Residential One-Family (R1), Residential Two-Family (R2), Residential Multiple Family (R3), Residential Services (RS), Central Business (C1), General Business (C2), Manufacturing Light Industry (M1), Manufacturing General Industry (M2), and Lake Development (LD).

No Facility components are proposed within the Castile-Perry Planning Area and no direct impacts to the Town of Castile or any associated zoning district are anticipated. Therefore, the Facility is in compliance with the Town of Castile's zoning regulations.

(e) Comprehensive Plans

A review of existing comprehensive plans adopted by municipalities within the 2-mile Study Area is provided below,[7] along with an assessment of whether the Facility is consistent with these comprehensive plans.

Town and Village of Mount Morris Comprehensive Plan

The Town of Mount Morris adopted a Comprehensive Plan in 1997,[8] along with the Village of Mount Morris, to serve as a foundation upon which the Town Council, the Village Board of Trustees, and the Comprehensive Planning Committee can prioritize future development objectives. The plan contains a review of existing conditions, an evaluation of past trends, and a projection of the future needs and trends of the Town and Village. The plan also describes the goals of the Town and Village and objectives derived from issues and concerns identified by the citizens and the Comprehensive Planning Committee. The document describes a new land use plan that represents the community's

[7] Municipalities within the 2-mile Study Area that lack comprehensive plans are not listed below.
[8] Note: Mount Morris is in the process of updating this plan and sent out a community survey in 2018 as part of this effort. However, at the time of the filing of this Application, the updated plan had not yet been approved.

desired development patterns; and recommended actions for the Town and Village to follow in order to achieve the goals and objectives in the plan.

Of relevance to the proposed Facility is the Land Use, Zoning, and Environmental Protection section in Chapter 3 "Goals, Objectives, and Recommended Actions." In this section the main goal is to "[p]rovide for the best and most efficient use of land while at the same time preventing or mitigating adverse development impacts, preserving the rural, small-town character of the community, and protecting the environment". In this section, the following overall land use objectives that have relevance to the proposed Facility are described.

- Regulate development in areas of the Town and Village that would result in or create drainage problems due to the disruption of naturally occurring drainageways or to soils which do not allow for good drainage.
- Ensure that zoning regulations provide for adequate buffers, screening, and circulation patterns to mitigate potential adverse effects of conflicting land uses along zoning district boundaries or where the zoning allows for conflicting uses to locate adjacent to one another.
- Ensure that the zoning regulations are thorough and comprehensive and address all anticipated land use conflicts and issues and contain the procedures required by NYS Law. Incorporate detailed site plan review procedures.
- Ensure that the criteria used for evaluating special-use permits are not confused with the criteria used for evaluating appeals for zoning variances.
- Use sound land use management concepts to protect and prevent all waterways and ground water in the Town from becoming polluted due to farm and other types of waste.

The proposed Facility is compatible with the 1997 Mount Morris Comprehensive Plan. The proposed Facility represents an efficient use that 1) will not result in drainage problems (see Appendix 11-B and Appendix 21-B) or other significant adverse environmental impacts (see Exhibits 22 and 23), 2) will help ensure the agricultural viability of the area (see Section (q)), and will not significantly impact community character (see Section (p) and Exhibit 24).

Town of Groveland Comprehensive Plan

The Town of Groveland adopted an Agricultural and Farmland Protection Plan (i.e., Comprehensive Plan[9]) in 2010 to serve as a reference, upon which Town officials and the community can prioritize future decisions regarding agricultural preservation, land use development, and protection of important farmland resources. The Plan is a proactive approach to protect and enhance agriculture as the primary industry and predominant land use in Groveland. The Agricultural and Farmland Protection Plan features information on the purpose and need for the plan, stakeholder participation,

[9] Note: based on the Applicant's discussion with the Town, this plan is indistinguishable from a comprehensive plan.

existing conditions, issues and trends, as well as goals and objectives for the future of the Town. Analysis and recommendations that the plan addresses fall under: land use analysis, agricultural potential, productivity and viability, future land use, farmland protection recommendations and implementation of the farmland protection plan.

Of relevance to the proposed Facility is the Future Land Use section of the Protection Plan. In this section, the following relevant overall land use objectives are described:

1. Non-agricultural uses should be directed to two primary areas in proximity to NYS Route 63 in the northwestern and southernmost quadrants of the Town. These two locations are where sewer and water infrastructure currently exist to some extent and agriculture is less dominant.
2. Large contiguous parcels of farmland that currently exist need to be kept intact from fragmentation by scattered development to the greatest extent practicable.

The proposed Facility boundaries are not within the Town of Groveland, and therefore the Facility does not conflict with the Town of Groveland's Farmland Protection Plan.

Town of Nunda Comprehensive Plan

The Town and Village of Nunda adopted a joint Comprehensive Plan update in November 2005 to serve as the unified voice of the community in guiding local decisionmakers.[10] The plan is primarily concerned with conserving open space and limiting development in the town and village to appropriate areas. The plan articulates the vision for the town as follows: "Nunda provides residents and visitors with an experience and quality of life that is unique in Livingston County and western New York. The Town and Village desire a balance between future development and the conservation of open space to ensure Nunda remains a great place to live, work and play. Nunda will achieve this vision by guiding development into desired areas, protecting assets that are essential to its rural character, creating and enhancing regional approaches to economic development and continuing to advance community development objectives. Nunda will avoid poorly planned development that can detract from the community vision laid out in this Comprehensive Plan."

The plan consists of an inventory and analysis section and a policies and implementation section. The policies and implementation section is broken into residential living, economic development, community resources and regional cooperation. A future land use plan is also described here.

The portion of the Nunda that is within the two-mile study area is designated 'Agriculture' by the future land use plan. According to the plan "Agriculture, and the open space it provides is essential to the rural character and local economy

[10] Note: the Town website indicates that the Planning Board is working on updating this comprehensive plan. However, as of the filing of this Application, the Applicant is not aware of any approved updates to this plan.

of Nunda. An increasingly common component of economically viable farm businesses is diversification. This may include on-farm processing or sales of farm materials, agritourism, or other related activities. Such activities are expected to be accommodated on farm properties throughout the town, subject only to reasonable restrictions designated to minimize adverse impacts such as traffic safety. Low density homesteads should be limited to three-acre minimum lot sizes."

As the proposed Facility is outside of the Town's boundaries, this vision for agricultural operations in Nunda would not be adversely impacted. Therefore, the Facility is compatible with the Town of Nunda's comprehensive plan.

Town of West Sparta Comprehensive Plan

The Town of West Sparta adopted a Comprehensive Plan in 2007 to serve as a foundation, upon which the Town Board, Planning Board, and Comprehensive Plan Committee can prioritize future development objectives. The Comprehensive Plan features a description of the town, a review of the town's history, as well as an explanation for the process of developing the Plan. The document covers the vision for the town, strengths and issues as well as future development. The Town Comprehensive Plan also lays out specific recommendations for agriculture and open space, housing and land use, taxation, business, natural assets and environment, public facilities and recreation, roads and transportation, emergency services, utilities, and community life and town heritage.

Of relevance to the proposed Facility is the Agriculture and Open Space section of the Comprehensive Plan. In this section, the main goal is to "support farming and agricultural pursuits with the hope of preserving a style of 'country living' and supporting the preservation of our communities open spaces." In this section, the following relevant overall land use objectives are described.

Policy

- Protect, support, and encourage existing farms and future farm development. Preserve working crop, dairy and livestock farms. Pursue limited residential growth and small business growth without causing a negative impact on current farming and agricultural operations.
- Preserve farming life in West Sparta by encouraging other agricultural enterprises, including non-traditional agricultural practices and farms that employ local residents and contribute to the local economy.

Plan of Action

- Write a broad definition of agriculture and agricultural accessory activities into the text of West Sparta's zoning and land use codes and any other pertinent regulations.
- Adopt a 'Right To Farm' law to protect the use of sound agricultural practices.

- Enact zoning regulations that protect, encourage and support farm activities including: the raising of both crops and livestock; non-traditional agricultural enterprises such as greenhouses; U-pick gardens and orchards; farm stands; on-farm processing and sales of farm produce (wine, cheese, maple products, cider, jams and jellies, etc.); bee-keeping; equine businesses (riding stables, horse boarding, showing and training facilities). The above names a few examples of farm activities that deserve support from zoning regulations.
- Regulate against non-farm residential development in agricultural districts to avoid conflict with farm or agricultural operations. If non-farm development is permitted as an exception, the use of landscaping, buffer areas, and larger lots with increased side and rear setbacks will be enacted. The use of cluster or conservation subdivisions with agricultural use on the open space may also be considered as an option that allows residential development while preserving farmland and open space.
- Zone limited areas of West Sparta outside the prime agricultural areas for residential development, residential subdivisions and the infrastructure that enhances a residential neighborhood. The Town should avoid the expansion of infrastructure such as public sewer, public water, natural gas, etc., in prime agricultural areas as that might encourage the sale of productive farmland for non-farming development.

The proposed Facility boundaries are not within the Town of West Sparta. Therefore, the Facility does not conflict with the Comprehensive Plan.

Town of Castile Comprehensive Plan

The Town of Castile adopted a Comprehensive Plan in 2016 to serve as a guide to all future public and private investment and decision-making in the community. The Comprehensive Plan features a community and process overview. The document also includes the vision and policy for the Town and the Plan of Action that was created for the Town. There is additional focus on future land use, community infrastructure and considering community design.

Of relevance to the proposed Facility is the Future Land Use – Community Infrastructure section of the Comprehensive Plan. The Future Land Use sections main goal is to "provide in only a most general way, some base guidance principles that will inform future decision makers and support the 'kind of development' that is predominantly preferred by Castile residents and businesses.". The Community Infrastructure subsection focuses on several issues related to community infrastructure and development, including public sewer and water expansion, natural gas service, solar power, and broadband/digital service. In this section, the following solar power objectives are described.

- The use of solar power for generating "clean" electricity has been a topic of discussion as of late with the State looking to increase its solar power generation in the near future. With incentives and various pricing/installation options available, the attractiveness of this resource increases. While there are fiscal as well as logistical implications there are also land use issues related to density/scale and location that can create potentially

undesirable impacts. Examples of such issues include land that is diverted from open space or agricultural use and homes placing solar panels that are interfering or aesthetically imposing to neighboring residential uses.

- Individual, private solar systems that provide power only to the property on which it is located (including industrial, commercial, and residential properties) are supported and encouraged where the homeowner finds benefit. Roof-mounted systems are generally less of a concern over free-standing or ground-mounted systems with the latter to be located within existing setbacks and limited to accessory structure heights.
- Larger, commercial systems, often called "solar farms", that are multi-panel arrays constructed as stand-alone or accessory uses to provide service to community utility, or government buildings are important to review in the context of the prevailing laws and regulations of Castile. Environmental impacts should be minimized, and sufficient public benefit should be demonstrated through the review process to achieve a consensus support. Any such systems will need to be supported with consultative financial, legal, engineering, and environmental expertise as the Castile approval process determines.

The proposed Facility boundaries are not within the Town of Castile. Therefore, the Facility does not conflict with the Comprehensive Plan.

(f) Map of Proposed Land Uses

The Applicant has identified proposed land uses within the 2-mile Study Area via discussions with State and local planning officials (including inquiring of pending land-use applications[11]), open houses, the public involvement program (PIP) plan implementation and preliminary scoping statement (PSS) development process, and other sources. The Town of Mount Morris identified two proposed land uses within the 2-mile Study Area—the Winters Solar Project and the Arney Solar Project (see Figure 4-6). The Winter Solar Project is a 39-acre 5-MW project located approximately 2 miles north of the Facility; the Arney Solar Project is a 30-acre 5-MW project located approximately 1 mile north of the Facility. No other proposed land uses were identified in the course the Applicant's outreach. As shown on Figure 4-3, no known gas wells or NYSDEC-permitted mines are located within or adjacent to the Facility Site.

(g) Map of Specially Designated Areas

Figures 4-2 and 4-7 illustrate specially designated areas, including inland waterways, agricultural districts, and special flood hazard areas within the 2-mile Study Area. Table 4-2 summarizes the sources of data used to prepare these

[11] The Applicant reached out to the Town of Mount Morris Code Enforcement Officer (CEO) in May 2020 to identify pending land use applications. In early June, the Applicant coordinated with the Town of Mount Morris CEO to reach out to planning officials in the Towns of the Nunda, West Sparta, and Groveland.

maps and whether the type of area is found within the 2-mile Study Area. There are no designated coastal areas, Local Waterfront Revitalization Program (LWRP) communities, groundwater management zones, NYS Open Space Conservation Plan Priority Conservation Projects, or Critical Environmental Areas (CEAs) in the designated Study Area.

Table 4-2. Sources of Data Used to Prepare Mapping of Specially Designated Areas

Mapping Requirement	Source	Specially Designated Area Present
Designated coastal areas	NYS GIS Clearinghouse, NYS Department of State	None
Inland waterways	NYS GIS Clearinghouse, NYS Department of State	See Figure 4-7
Local waterfront revitalization program areas – approved plans	NYS GIS Clearinghouse, NYS Department of State	None
Groundwater management zones	NYS GIS Clearinghouse	See Figure 4-7
Agricultural districts	NYS GIS Clearinghouse	See Figure 4-2
Flood hazard areas	NYS GIS Clearinghouse, FEMA	See Figure 4-7
NYS Open Space Conservation Plan – Priority Conservation Projects	NYSDEC	None
Critical Environmental Areas	NYSDEC	None

The Genesee River, a designated inland waterway, is located northeast of the Facility Site on the western edge of the 2-mile Study Area. No mapped FEMA special flood hazard areas are located within the Facility Site. An undetermined FEMA Flood Zone is associated with the Genesee River, while mapped 100-year and 500-year FEMA Flood Zones are associated with the Canaseraga Canal and Keshequa Creek waterways on the northeastern edge of the 2-mile Study Area. There are no designated coastal areas, Local Waterfront Revitalization Program communities, groundwater management zones, or critical environmental areas in the 2-mile Study Area (NYSDEC 2016a; NYSDEC 2016b; NYSDOS, 2012).

Two agricultural districts are located within the 2-mile Study Area: Livingston County Agricultural District 2, which has 632 acres within the 2-mile Study Area; and Livingston County Agricultural District 3, which has 16,098 acres within the 2-mile Study Area. 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 reviews for Livingston County Agricultural Districts 2 and 3 is 2021 and 2023, respectively (Cornell Institute for Resource Information Sciences, 2011; Livingston County NY Business Development Center, 2019).

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

Figures 4-2 and 4-8 illustrate recreation and other sensitive land uses known to the Applicant within the 2-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 4-3 summarizes the sources of data used to prepare these maps and identifies whether the land use is found within the 2-mile Study Area.

Table 4-3. Mapping of Recreational and Sensitive Areas

Mapping Requirement	Source	Recreational and Sensitive Areas Present
Wild, Scenic and Recreational River Corridors	National Wild and Scenic Rivers System	See Figure 4-8
Open Space	NYS GIS Clearinghouse and local governments	See Figure 4-2 and 4-8
Wildlife management lands	NYS GIS Clearinghouse, NYSDEC, U.S. Fish and Wildlife Service	See Figure 4-8
Forest management lands	NYS GIS Clearinghouse, NYSDEC	None
Conservation easement lands	National Conservation Easement Database; NYS GIS Clearinghouse	See Figure 4-2
State and federal scenic byways	NYSDOT; NYS GIS Clearinghouse	None
Nature preserves	NYS GIS Clearinghouse	None
Designated trails	NYS GIS Clearinghouse and local governments	See Figure 4-8
Public-access fishing areas, camping areas	NYS GIS Clearinghouse, NYSDEC, Montgomery County	None
Oil and gas production	NYSDEC	See Figure 4-3
Gas pipelines	NYSDEC, NYSDPS	None
Major communication and utility uses and infrastructure	NYSDEC, Comsearch	See Figure 4-3 and Figure 26-1
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, as well as a more detailed assessment (including potential locally significant resources), within five miles of the proposed Facility (i.e., the 5-mile Study Area). See Appendix 24-A for further details regarding these resources.

The Facility will have no direct impact on the resources identified in the figures listed in Table 4-3 (i.e., the resources will not be removed or physically modified in any way). The Facility's potential effect on any of the resources identified is limited to a change in the visual setting resulting from the introduction of Facility components. For more information regarding the anticipated visual impacts of the Facility and mitigation measures, see Exhibit 4(i) and Exhibit 24.

Exhibit 19 and associated figures and reports identify sensitive sound receptors, which include residences. These sensitive sound receptors are mapped in Figure 19-1. For more information regarding the anticipated sound 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

As summarized in Table 4-4, there are eight general land use types within 1-mile of the Facility Site.

Table 4-4. Land Uses within the 1-mile of the Facility Site.

NYSORPS Land Use Classification	Acres within 1-mile of the Facility Site	Percent of Area within 1-mile of the Facility Site
100 - Agricultural	9,751	53%
200 - Residential	3,469	19%
300 - Vacant Land	2,056	11%
400 - Commercial	5	0%
500 - Recreation & Entertainment	100	1%
600 - Community Services	933	5%
800 - Public Services	2	0%
900 - Wild, Forested, Conservation Lands and Public Parks	2,036	11%
Total	**18,352**	**100%**

Table 4-5 summarizes impacts to each of the four land use classes found within the Facility Site.

Table 4-5. Impacts to Land Uses within the Facility Site.

NYSORPS Land Use Classification	Acres within the Facility Site	Acres within and adjacent to the fenced PV arrays[1]
100 - Agricultural	3,028	1024
200 - Residential	259	82
300 - Vacant Land	39	3
400 - Commercial	5	0
Total	**3,331**	**1110**

[1]This includes all areas within the fenced PV arrays as well as areas outside the security fencing where land use will be affected (e.g., vegetative buffer plantings, permanent access roads, etc.).

The presence of the fenced PV panel arrays, collection substation, and the POI switchyard will result in the conversion of approximately 1,110 acres (or approximately one third of the Facility Site) from its current use to energy generation. However, the Applicant is planning to consult with farmers in the area to accommodate agricultural uses within the Facility Site that are compatible with solar energy generating facilities, including sheep grazing and apiculture, i.e., farming operations may continue across much of the acreage identified in Table 4-5. The Applicant's parent company, EDF Renewables, has successfully included sheep grazing of other facilities that it owns, and whether or not the Facility will include sheep grazing or other agricultural uses will depend on the economic feasibility for area farmers to do so. Aside from occasional maintenance and repair activities, Facility operation will not result in additional impacts to ongoing land uses beyond those described in the previous sections.

The impacts to land use identified in Table 4-5, and Facility-related impacts to farmland in general, are anticipated to be largely reversable upon decommissioning. The Applicant will comply with the NYSDAM's 2019 Guidelines for Agricultural Mitigation for Solar Power Projects during construction and decommissioning, and soils across the Facility Site will generally undergo only limited soil disturbance. Overall, construction and decommissioning of the Facility are not anticipated to substantively affect the capacity for current land use practices, including agriculture, to resume following decommissioning.

Compliance with NYSDAM Guidelines for Agricultural Mitigation for Solar Energy Projects

The NYSDAM has promulgated a guidance document that applies to solar power projects sited on agricultural lands. The NYSDAM's October 2019 *Guidelines for Solar Energy Projects - Construction Mitigation for Agricultural Lands* (NYSDAM 2019 Guidelines; Appendix 4-A) include 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 construction will comply with NYSDAM agricultural protection guidelines to the maximum extent practicable (see Exhibit 22[q] for a full analysis of the Facility's impacts to agricultural land). As per

typical NYSDAM requirements, the Applicant and/or Environmental Monitor will consult with NYSDAM during construction if deviation from the approved plans is necessary.

Mitigation measures to protect and restore agricultural soils within the Facility Site will be undertaken during and after construction and will include the full restoration of temporarily disturbed agricultural land in accordance with the NYSDAM 2019 Guidelines. For example, topsoil will not be stripped during saturated conditions when such actions would damage agricultural soils. Existing farm roads will be used for temporary access to Facility work areas to the extent practicable. However, if temporary roads in new locations are necessary, topsoil in the work area will be stripped and stockpiled on the property from which it was removed alongside the area of disturbance with topsoil kept separate from subsoil. All vehicular movements and construction activity outside the fenced arrays will be restricted to areas where topsoil has been removed. All temporarily disturbed agricultural soils will be restored following construction. The restoration process will generally involve the following sequence of activities:

1. Decompaction of compacted subsoils to a depth of 18 inches using a deep ripper or heavy-duty chisel plow.
2. Disking and removal of stones (four inches and larger in size) from de-compacted subsoil.
3. Spreading of stockpiled topsoil over the de-compacted subsoil, and reestablishing pre-construction contours to the extent practicable.
4. Disking and removal of stones (four inches and larger in size) following the spreading of topsoil.
5. Seed selection in agricultural fields will be based on guidance provided by the landowner and NYSDAM personnel, if applicable.
6. Regrading all access roads and restoring original surface drainage patterns or other drainage patterns incorporated into the design.

In addition, specific to agricultural land temporarily impacted by the Facility, the Applicant will provide a monitoring and remediation period of no less than two years immediately following the completion of initial restoration. The two-year period will allow for the effects of climatic cycles such as frost action, precipitation, and growing seasons to occur, from which various monitoring determinations can be made. The monitoring and remediation phase will be used to identify any remaining agricultural impacts associated with construction that need mitigation and to implement the follow-up restoration. General conditions to be monitored include topsoil thickness, relative content of rock and large stones, trench settling, crop production, drainage, and repair of severed fences. Impacts will be identified by the environmental monitor through on-site monitoring of all agricultural areas impacted by construction and through contact with respective farmland operators and NYSDAM.

Facility Consistency with Regional Planning Documents

In addition to the regional Comprehensive Plans discussed in Section (e), the Facility is consistent with regional and statewide plans outlined in Table 4-6 and the statewide renewable energy standard, as presented in the *Final Supplemental Environmental Impact Statement (FSEIS) for the Implementation of a Large-Scale Renewable Program and a Clean Energy Standard*.

The Clean Energy Standard FSEIS examined the impacts of implementing an approximate goal of 15%-20% solar share of the total statewide renewable energy portfolio required to reach a 50% renewable energy goal by 2030. In this analysis, solar energy was acknowledged for its ecosystem services benefits for agriculture, since it requires essentially no water to operate and thus does not pollute water resources or strain water supplies. Notably, statewide agricultural impacts were not listed as a key concern for utility scale solar energy.

Table 4-6. Facility Consistency with Regional and Statewide Planning Documents

Plan	Relevant Goals and Objectives	Facility Consistencies	Facility Inconsistencies	Uniform Resource Locater (URL)
New York Open Space Conservation Plan (2016)	- Maintain critical natural resource-based industries such as farming, forest products, commercial fishing, and tourism. - Address global climate change (through various means). - 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.	- The Facility utilizes a renewable resource to generate electric power without contributing to global climate change. - The Facility enhances the economic viability of participating farms, enabling them to maintain operations on lands not utilized for the Facility.	None	https://on.ny.gov/2vGiA6W
New York State Historic Preservation Plan (2015-2020)	- Enhance collaboration to advance preservation. - Integrate preservation into local and regional decision making.	- The Applicant has coordinated with New York State Office of Parks, Recreation and Historic Preservation to develop site-specific work plans. - The Applicant has adapted the design of the Facility to avoid impacts to cultural resources (see Exhibit 9)	None	https://on.ny.gov/2BdDtLQ
Statewide Comprehensive Outdoor Recreation Plan (2014-2019)	- Reconnect children and adults with nature and recreation by improving access to outdoor recreation opportunities. - Continue to develop a comprehensive, interconnected recreation-way, water trails, greenway and blueway trail system. - Continue efforts to restore, conserve and protect the biodiversity of state lands.	- The Facility does not have any direct impacts on known public recreational resources.	None	https://on.ny.gov/2nADAHX

Plan	Relevant Goals and Objectives	Facility Consistencies	Facility Inconsistencies	Uniform Resource Locater (URL)
New York State Office of Parks, Recreation and Historic Preservation Sustainability Plan (2009)	- Advance a new agency-wide sustainability initiative to adopt green practices - Outline a plan to reduce impacts that the agency's daily activities have on natural resources - Adopted a goal of reducing greenhouse gases 30% by 2030	- The Facility is aligned with the plan's stated goal of reducing greenhouse gases 30%.	None	https://on.ny.gov/2MEzJ7G
Livingston County Agricultural and Farmland Protection Plan	- Support Entrepreneurship and On-Farm Development: work with farmers to improve non-farm income sources - Support Farm Friendly County Based Land Use Policies and Programs: improve coordination in the development of regionally significant infrastructure improvements and target future infrastructure siting away from agricultural areas.	- For the landowners who are participating in the project, the Facility will provide a guaranteed revenue stream. In addition, many participating landowners plan to maintain existing agricultural activities on the portions of their properties that are not proposed for development. Therefore, although the Facility will remove some areas from active agricultural use, as further described in Section (q) below, the economic stimulus provided by the Facility will help to ensure long term agricultural viability in the region. Furthermore, the Applicant is planning allow sheep grazing and apiculture within the Facility Site, as practicable and feasible. The Applicant's parent company, EDF Renewables, has experience contracting with farmers for sheep grazing as a form of vegetation control on other utility scale solar facilities that it owns and/or operates.	None	https://bit.ly/39YmFVA

Plan	Relevant Goals and Objectives	Facility Consistencies	Facility Inconsistencies	Uniform Resource Locater (URL)
Town of Mount Morris Agricultural and Farmland Protection Plan	- Revise Commercial Solar Installation law to exclude development on prime farmland, floodplain, and wetlands. - Work with Soil and Water Conservation District to strengthen regulations and require buffers between drainage ditches and farm fields, and work with farmers to ensure that valuable soil is not eroding into roadside ditches and culverts. - Revise the zoning ordinance to include more robust language, and an updated definition of agricultural practices, as well as definitions for specific farm and agricultural uses.	- The Facility has been designed avoid and minimize impacts to Prime Farmland, as defined in this plan. No built facilities or photovoltaic (PV) panels will be located on prime farmland. - Further, the Facility has been designed to (1) avoid impacts to wetlands to the maximum extent practicable (see Exhibit 22), (2) avoid all impacts to floodplains, and (3) limit work in areas with steep slopes. In addition, the best management practices (BMPs) and supporting plans and practices that will be implemented by the Applicant (e.g., the stormwater pollution prevention plan (SWPPP) and revegetation of the site with perennial vegetation) will minimize the potential for soil loss or other losses to farmland functions and values.	None	No URL available

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 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 in Appendix 21-B.

During construction of the proposed Facility, there will be a temporary increase in truck traffic on area roadways. A Traffic Analysis Report 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 and traffic routes were identified to reduce impacts. 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 Exhibit 25 of this Application for more detailed information on traffic and transportation impacts from construction of the proposed Facility.

The Facility's long-term impacts (e.g., PV panel visibility, as well as very minor increases in traffic) are limited and are not anticipated to adversely impact the Facility's compatibility with existing land uses. Each of these impacts is discussed briefly below, with reference to the more detailed discussions found elsewhere in this Application.

Solar energy projects do not result in the visual impacts comparable to other large-scale energy projects, due to the low profile of the PV panels. However, the presence (i.e., visibility) of the PV solar panels will likely result in a change in perceived land use from some viewpoints. The VIA (Appendix 24-A) identifies those locations within the 5-mile Study Area where there is potential for the proposed Facility to be seen from ground-level vantage points. Topography and vegetation block daytime views of the Facility from approximately 84.6% of the Visual Study Area (i.e., the Facility is likely to be visible from 15.4% of the 5-mile Study Area). Appendix 24-A also describes visibility impacts on the sensitive sites listed above. The analysis presents the distance to the PV panels 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.

Evaluations by registered landscape architects indicate that, while appreciable contrast may be possible from some viewpoints, the overall contrast presented by the Facility will likely be moderate. The greatest perceived visual impact will likely occur where numerous panels are visible, where the panels are in proximity to the viewer, or where the panels appear out of place in their setting. Factors mitigating visual impact within the 5-mile Study Area include, 1) topography that limits the number of panels visible from certain locations, 2) the relatively few viewers present on the elevated plateaus and ridgetops where views of numerous panels and near foreground views will be available, 3) the substantial screening provided by existing foreground landscape features in forested areas and areas of human settlement, 4) the working agricultural character of much of the landscape in which the Project would be viewed, and 5) the planting plan that has been developed by the Applicant to minimize the visual effect of the Facility. For more information on Facility visibility and the anticipated visual impacts of the Facility, see Exhibit 24 of this Application.

A Pre-Construction Noise Impact Assessment has been prepared for the proposed Facility (see Appendix 19-A). The study concludes that noise emitting equipment within the PV arrays, the substations, and the energy storage facility will be designed to comply with all applicable standards and conditions. See Exhibit 19 of the Application for a full discussion of potential noise impacts. It is also important to note that solar facilities have the unique characteristic of only being able to produce energy during daylight hours. Therefore, although some components may still produce some noise at night (e.g., transformer components and HVAC equipment at the energy storage facility), overall the site will have substantially reduced noise profile at night when noise impacts are more likely to be an issue.

Although construction of the Facility may result in some minor temporary vibrational impacts during construction (e.g., as a result of pile driving activities; see Exhibit 19 for discussion), no vibration issues are anticipated during the operation of the 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 located within 1 mile of the Facility. Within the Facility Site, conversion of areas classified as residential by the NYSORPS will total 55 acres. Although schools, civil facilities, and commercial areas are largely absent within 1 mile of the Facility, there are several important recreational facilities and open space areas, including Letchworth State Park, the Genesee Valley Greenway State Trail, and Sonyea State Forest (see Figure 4-8). The Facility will have no direct impacts to these or any other identified recreational or open space resources. The Applicant has coordinated extensively with stakeholders representing each of the three recreational resources

identified above to discuss potential indirect (i.e., visual and noise) impacts, and to identify and resolve any potential concerns (see Appendix 2-B). Exhibits 19 and 24 provide information addressing potential indirect impacts to these resources.

With respect to the Facility's compatibility with the First Presbyterian Church of Tuscarora, cemeteries within 1 mile of the Facility Site, and any other resources listed on or potentially eligible to be listed on the State or National Register of Historic Places (S/NRHP), please see the Historic Architectural Resources Survey (Appendix 20-G).

Overall, the Facility is compatible with land uses of particular concern to the community.

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

The proposed Facility will connect the POI switchyard to the existing NYSEG transmission line via an approximately 400-foot-long aboveground transmission line. Otherwise, the Applicant intends to install underground collection lines. The aboveground lines will be located solely at a developed section of the Facility Site (i.e., the substation/switchyard) and so will have minimal environmental impact. There is a limited amount of site preparation required to tie into the existing electrical system.

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

The Facility will include approximately 34 miles of underground collection lines. A total of 1,389 acres will be located within 300 feet of the centerline of underground collection lines, of which approximately 37 acres (2.7%) 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 1,352 acres has been classified by the NYSORPS as follows: Agriculture, 1,159 acres (83%); Vacant Land (excluding agricultural vacant land), 44 acres (3%); Residential, 146 acres (10%); Commercial, 2 acres (<1%) ; and Community Services 0.2 acres (<1%%). No lands designated as Public Services, Recreation and Entertainment, Industrial, or Wild, Forested, Conservation Lands, and Public Parks exist within 300 feet of buried collection lines. Approximately 1,229 acres (88%) 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 current adjacent land uses where such underground collection lines are located outside the fenced arrays.

The construction of buried electrical collection lines will result in a temporary disturbance. As discussed in Section (i) above, in agricultural fields, construction will generally be conducted in accordance with the NYSDAM Guidelines. Therefore, permanent land use impacts associated with underground electrical collection lines are not anticipated. To minimize impacts in forested land, buried electrical collection lines will be placed in areas of existing disturbance (e.g.,

existing farming roads or along the edges of actively farmed fields) where feasible. Where impacts to important environmental resources would otherwise be unavoidable (e.g., stream crossings), subsurface bores/horizontal drilling will be used to minimize impacts where practicable.

(l) Conformance with the Coastal Zone Management Act

The Facility Site 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 is not applicable.

(m) Aerial Photographs

Figure 4-9 contains aerial photographs within the 2-mile Study Area. This mapping was prepared using 1-meter resolution natural color orthoimagery from the USDA National Agriculture Imagery Program's (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 1-meter NAIP imagery captured in the 2019 growing season. These maps were created using ArcGIS software. Line symbols are used to depict the centerlines of proposed access roads and electrical collection lines and polygon symbols to depict the photovoltaic panel areas, collection substation, POI switchyard, energy storage facility, if applicable, and construction laydown areas. Buffers around each Facility component show the limits of clearing and disturbance required, as described in Exhibit 22.

(o) Source of Aerial Photographs

As previously noted, Figure 4-9 was prepared using 1--meter resolution natural color orthoimagery from the USDA's NAIP captured during the 2019 growing season.

(p) Community Character

The Facility is proposed to be located in a rural agricultural area in Livingston County. The land cover types in Livingston County are predominately field crops, pasture, and forestland, with agriculture as the dominant cover (Livingston County, 2006). The population of Livingston County was estimated to be 63,227 in 2018.[12] In 2012, Livingston County

[12] https://www.census.gov/quickfacts/livingstoncountynewyork

produced $186.8 million in agricultural sales, and ranked high in comparison to other counties throughout New York State in the production of corn and wheat for grain (1st for acreage), sheep and lambs (3rd), soybeans (5th), and cattle and calves (11th); and also in sales of grains, oilseeds, dry beans/peas (2nd), and sheep, goats, wool, mohair, milk (2nd), and milk from cows (8th) (NYSDAM Agricultural Census, 2012). According to the 2012 NYSDAM agricultural census, land with agricultural uses in Livingston County comprise approximately 194,945 acres or 48.2% of the county's land mass.

Based on NYSORPS land use classification data embedded in geospatial parcel data the Applicant acquired from Livingston County in 2019, land use within Livingston County is dominated by agriculture (52%), residential land (25%), and vacant land (12%). The most common active agricultural land uses in Livingston County include field crops (72,127 acres) and dairy farms (18,758 acres). In addition to these active agricultural uses, vacant land (300-level property classifications) and vacant but productive farmland (property class 105) comprise approximately 39 percent of the total land area within the Livingston County, accounting for more than 151,000 acres. These vacant parcels are scattered throughout the County, and productive vacant farmland may be intentionally left fallow or as uncultivated fields. Many farmers permit private hunting on these lands during the hunting seasons, as with many rural areas throughout the state. Residential uses that are part of a farm account for approximately 7 percent of agricultural uses in the County.

The agricultural rural character of the Facility is generally similar to that of the County (see discussions on existing land uses in the sections above) and, as discussed in Section (i) above, the Facility is consistent with County and Town goals to protect productive agricultural soils. The construction and operation of the Facility will impact approximately 1,155 acres of agricultural district land within the Facility Site. Impacts to agricultural district land outside the fenceline of the Facility would be largely temporary, existing land uses would be allowed to continue during Facility operations. Agricultural production on agricultural district lands within the fenceline of the Facility will be paused for the life of the Facility. However, lease payments paid to participating farmers will improve the long-term economic viability of other farmland they own and can continue to operate. These payments will likely have indirect positive effects on the agricultural character of the community by allowing farmers to reinvest solar lease revenues into other farmland.

In addition, the Applicant has engaged Agrivoltaic Solutions LLC (AVS), a New York company owned and operated by sheep producers, to help evaluate (1) the feasibility of utilizing managed sheep grazing to control vegetation growth under and around the solar panels and (2) potential apiculture practices that could be implemented to facilitate foraging of the site by apiarists. Sheep grazing is a method of vegetation control used on solar facilities around the world and is increasingly being used in the northeastern United States. As described in the Applicant's Agricultural Integration Plan (Appendix 4-B), sheep grazing is a viable method for integrating agriculture within the Facility Site. Co-locating honeybee apiaries and solar farms has been proven to be a successful method of integrating agricultural use at solar

farms throughout North America. The Applicant has evaluated apiculture practices and, through the incorporation of pollinator-friendly vegetation into the project design, the Facility will create habitat for honeybees and may be suitable to such agricultural practices (see Appendix 4-B). If a grazier interested in grazing sheep within the Facility can be found or apiarists are identified that are interested in foraging the site, then agricultural use would continue within the Facility during its operation. See Section (q) of this Exhibit for a further discussion of agricultural impacts.

The Facility will introduce new visual elements (i.e. solar panels) into the existing landscape, which could be considered a change in community character for the primarily agricultural and rural residential areas that surround the Facility Site. However, the visibility and visual impact of the solar panels will be highly variable based on distance, number of panels in 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 panels to avoid or minimize disturbance of wetlands, streams, and cultural/historic resources.
- Burying electrical collection lines between Facility arrays.
- Installing the visual buffer plantings developed by the Applicant to help minimize/mitigate the visual effect of the Facility.
- Implementing agricultural protection measures to avoid, minimize, or mitigate impacts on agricultural land and farm operations.
- Consultation with various stakeholders to minimize any potential impacts to the community.

There are also numerous Facility-specific studies attached to this Application, such as a Visual Impact Assessment (see Appendix 24-A), Pre-Construction Noise Impact Assessment (see Appendix 19-A), and Cultural Resources Studies (see Appendices to Exhibit 20). 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. 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.

(q) Agricultural Land Use

Over the last 20 years, agricultural lands in Livingston County have undergone a variety of changes. According to the *2006 Livingston County Agricultural and Farmland Protection Plan*, agriculture in Livingston County is transforming from a traditional base of mid-sized family farms to a bifurcated base of large consolidated agribusiness and small farms that are often equestrian focused. The County contains one of the State's highest concentrations of Prime and Productive Soils, but development pressure from the Rochester area is demonstrating a trend that could challenge agriculture in the region. The County's dominant agricultural sector is dairy, which accounts for an estimated 70% of farm-related output value (Livingston County Agricultural and Farmland Protection Plan, 2006). According to the Town of Mount Morris's Agricultural and Farmland Protection Plan, agricultural land uses cover more than 53% of the total land area in the Town. When small farming operations on rural residential properties are included in this total, the Town estimates closer to 67.5% of the Town falls into the agricultural land use category (Town of Mount Morris Agricultural and Farmland Protection Plan, 2019).

Despite a minor decrease in the total acres of farmland between 1997 and 2017[13] (4%), agriculture remains a key industry in Livingston County. Between 1997 and 2017, the market success of agriculture throughout Livingston County can be measured by the following metrics: an increase in the total number of farms (+6%), an increase in the average value per farm (+219%), an increase in the value of products sold (+138%), and an increase in the number of milk cows (+67%), hogs and pigs (+41%), and sheep and lambs (+355%) (USDA 1997 & 2017 Census of Agriculture).

These recent positive trends in Livingston County are tempered by the long-term economic struggles of agriculture in the region and nationwide. The 2019 Town of Mount Morris Agricultural and Farmland Protection Plan notes that while competition for land resources is not driving up land value, the cost of owning and holding land (including property tax rates and debt service) increases the opportunity cost relative to the return generated by farming. This often results in larger farming operations purchasing smaller properties as they become available, increasing the number of small farms renting land, as opposed to owning it, and creating year to year uncertainty regarding land availability (Town of Mount Morris Agricultural and Farmland Protection Plan, 2019).

Table 4-7 presents metrics from the USDA Census of Agriculture that demonstrates this 20-year trend of increasing number of small farms (as well as very large farms) matched with an overall decline in active agricultural land use as measured in acres.

[13] The year of the most recent USDA Census of Agriculture.

Table 4-7. Recent Trends in Agricultural Land Use Changes within Livingston County

USDA Census of Agriculture Metric	1997	2017	Change
Number of Farms	625	661	6%
Land in Farms (Acres)	197,408	189,488	-4%
Average Size of Farm (Acres)	316	287	-9%
Average Estimated Market Value of Land and Buildings per Farm	$334,050	$1,064,151	219%
Farms by size (Acres)			
1 to 9	26	62	139%
10 to 49	110	228	107%
50 to 179	232	202	-13%
180 to 499	145	81	-44%
500 to 999	62	29	-53%
1000+	50	59	18%
Total Cropland	154,110 ac	145,878 ac	-5%
Harvested Cropland	127,478 ac	131,568 ac	3%
Irrigated Land	1,247 ac	208 ac	-83%
Average market value of agricultural products sold per farm	$116,698	$277,904	138%
Farms by value of sales			
Less than $2,500	161	249	55%
$2,500 to $4,999	80	36	-55%
$5,000 to $9,999	78	73	-6%
$10,000 to $24,999	81	87	7%
$25,000 to $49,999	45	68	51%
$50,000 to $99,999	43	26	-40%
$100,000 +	137	122	-11%
Number of beef cows	2,185	2,193	0%
Number of milk cows	17,279	28,803	67%
Number of hogs and pigs	293	413	41%
Number of sheep and lambs	2,397	10,909	355%
Selected crops harvested			
Corn for grain or seed (acres)	34,549	30,578	-11%
Corn for silage or green chop (acres)	15,282	23,341	53%
Oats for grain (acres)	3,421	1,037	-70%

Source: USDA Census of Agriculture, 1997 and 2017

To better understand potential impacts of the Facility on agricultural practices, all participating landowners hosting Facility components were surveyed in the spring of 2020. The purpose of the survey was to determine how the Facility would impact agricultural viability. Potential impacts to agricultural viability were measured by the land available for existing farm operations, rental rates for agricultural lands, and the price of agricultural lands. Thirteen of the eighteen

landowners participated in a 10-question survey that was administered by phone, mail, or email, depending on the preference of the landowner. Results of this survey are discussed below.

Impacts on Land Availability for Existing Farm Operations

Landowners within the Facility Site primarily rent their land to others, as opposed to running their own operations. Five of the thirteen respondents stated that they actively practiced agriculture as operators and nine respondents indicated that they rent their land to others, one landowner indicated they both rent and operate on their land. Of the respondents who farmed the land in 2019, three reported growing field crops (60%) and two used the land for hunting (40%). Of the nine respondents that indicated they rented their land, eight (88%) stated the land was being used to grow field crops, and the remaining landowner classified the use as "other" active agricultural use. None of the thirteen responded that the land was inactive.

The Applicant is planning to offer multi-year contracts with farmers in the area to allow sheep grazing to be used to manage site vegetation. These long-term contracts would offer security for farmers and will allow them to invest in animals and facilities, as needed. As detailed in the Agricultural Integration Plan (Appendix 4-B) the projected number of sheep that could be grazed within the Facility Site is 3,847. These animals would be contracted from one or more farms and the grazing opportunities provided could represent a significant contribution to the local agricultural economy. As noted in USDA Agricultural Census data, lamb and sheep production is up 355% in Livingston County over the last 20 years. In addition to grazing, the Applicant is also planning to co-locate honeybees and honey production at the Facility site. In addition to the production and sale of honey, beekeeping operations may also provide indirect agricultural benefits by increasing pollinators in the region, which has been shown to increase soy crop yields (Siegner et al., 2019).

Although the Facility is anticipated to remove agricultural land from production, twelve of the thirteen survey respondents reported that the Facility would not substantively change their operations, and only three of the thirteen respondents planned to purchase or rent additional land for their operations. The one respondent that anticipated the Facility would change their operations stated that they would "*work less acreage."*

Impacts on Rental Rates of Agricultural Lands

As indicated above, most survey respondents rent out parcels within the Facility Site. Almost all respondents reported that rented land is used primarily for field crops (88%); one respondent indicated their land is rented for non-agricultural uses. These rental activities provide a small amount of supplemental income. According to the USDA, between 2008 and 2019 the average rental rate per acre of non-irrigated cropland in Livingston County was $73.44, and the average rental rate per acre for pastureland was $28.25. These rates have remained relatively stable since 2008 when the

USDA began reporting this information ("USDA/NASS QuickStats Query Tool", 2020). In light of the results of the survey presented here and above, and considering the limited number of landowners within the Facility Site and the acreages involved, it is unclear whether the construction and operation of the Facility would affect the demand for rental land in the area (i.e., the area within 5 miles of the Facility Site—the 5-mile Study Area).

Impacts on Price of Agricultural Lands

Eight of the survey respondents (62%) indicated that that the construction of the Facility would not impact the price of farmland in the area; three of the respondents believed the construction of the Facility would increase the price of farmland; one respondent felt that construction of the Facility would decrease prices, and one respondent declined to respond. Two respondents stated that other factors like the economy would be more important contributors to land price changes, noting that price changes for land "as of this time [are] not known depending on commodity prices" and that "farm land or any land will continue to increase with the economy."

Measures to Avoid and Minimize Impacts to Soils and Adjacent Agricultural Uses

As referenced in Section (i) and Section (p) of this Exhibit, the Facility will be constructed and operated in compliance with the 2019 *New York State Department of Agriculture and Markets Guidelines for Agricultural Mitigation for Solar Power Projects* (Appendix 4-A), to the maximum extent practicable. The Applicant is aware that, in some cases, installation of solar equipment on agricultural land will violate the required agricultural use covenants for preferential real estate taxes. Where this occurs, the increased taxes due will be paid by the Applicant. This increase in tax revenue to the local taxing bodies comes with no additional burdens on those taxing bodies and represents yet another positive aspect of solar development in New York State.

The impacts to agricultural lands for the purposes of providing clean solar energy is also discussed in depth in the *Final Supplemental Environmental Impact Statement for the Implementation of a Large-Scale Renewable Program and a Clean Energy Standard*. In this Final Supplemental Environmental Impact Statement (FSEIS), statewide agricultural impacts were not listed as a key concern for utility scale solar energy. The analysis estimates that if 100 percent of the utility scale solar energy (USSE) projects contemplated in the Clean Energy Standard FSEIS were to be installed on New York agricultural lands, approximately 0.06 percent to 0.16 percent of agriculture lands would be converted for use in USSE projects (NYSDPS 2016, p.5-21).[14] While the FSEIS does state that USSE projects may result in a cumulative loss of a specific agricultural community's aesthetic, visual, or cultural resources, it is also acknowledged

[14] The NYSERDA study assumes that USSE projects will require approximately 2 acres of land per MW and a maximum of 6,865 MW of USSE projects will be required to meet Clean Energy Standard goals. However, in the Applicant's experience, USSE projects are more likely to use between 4-7 acres of land per MW. Were this assumption applied to the calculations presented in the Clean Energy Standard FSEIS, between 27,460 and 48,055 acres of land, equivalent to between 0.3% and 0.5% of New York State certified agricultural district lands, would be required to meet Clean Energy Standard goals.

that there are a number of regulations, policies, and best practices that collectively serve as measures to mitigate these adverse impacts to agriculture (NYSDPS 2016, p5-65). As demonstrated throughout this Application, the proposed Facility complies with these mitigation regulations, policies, and best practices.

Impacts on Drainage Tile Lines

As part of the survey sent to landowners within the Facility Site (referned above), maps were distributed and landowners were asked to identify all drainage tile lines along their properties. These maps have been evaluated in order to minimize impacts to drainage tiles during the construction of the Facility. If drainage tiles outside the fenced PV panel array areas are damaged during installation of collection lines and roads, these tiles will be repaired as they are damaged. To the extent that drainage tiles within the PV panel array areas are impacted during construction, they will be restored as part of decommissioning, to the extent that land is planned to be returned agricultural use and at landowner request, or as needed.

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