CORDELIO POWER

FLAT CREEK SOLAR

Permit Application No. 23-00054

§ 1100-2.16 Exhibit 15

Agricultural Resources

Contents

Acronym List iii
Glossary Terms iv
Exhibit 15: Agricultural Resources 1
15(a) Assessment of Agricultural Resources 1
(1) NYS-Certified Agricultural Districts 1
(2) Real Property Agricultural Value Assessment 3
(3) Zoning Districts or Overlay Zones 4
(4) Agricultural Land Uses Compared to Non-agricultural Land Uses 7
(5) Existing Energy Infrastructure and Completed Renewable Energy Facilities 9
(6) Active Agricultural Businesses, Facilities, and/or Infrastructure 9
(7) Potential Construction Impacts and Methods to Facilitate Farming 10
(8) Temporary and Permanent Impacts on Agricultural Resources 11
15(b) Agricultural Resource Maps 13
(1) Agricultural Land Use 14
(2) Production Acreage Retained for Agricultural Use 14
(3) Landowner Imposed Development Restrictions 15
(4) Agricultural Drainage Systems 15
(5) USDA Soil Map 15
(6) NYS Agricultural Land Classification Mineral Soil Group Map 16
15(c) Agricultural Plan 17
15(d) Drainage Remediation Plan 17
(1) Likelihood of Drainage Impacts Within and Adjacent to the Facility 17
(2) Anticipated Repair Methods 19
15(e) Feasibility of Agricultural Co-utilization 20
References 21

Tables

Table 15-1. Facility Site Parcels Within an Agricultural District 2
Table 15-2. Cropland within the Facility Site and Study Area 7
Table 15-3. Impacts to Active Agricultural Lands within MSGs 1-4 12
Table 15-4. Mineral Soil Groups Relative to Various Geographic Areas 16

Figures

Figure 15-1. Agricultural Land in the Study Area
Figure 15-2. Location of Drainage Features within the Study Area
Figure 15-3. Agricultural Soils in the Facility Site
Figure 15-4. Agricultural Land to Remain in Production

Appendices

Appendix 15-1. Real Property Agricultural Assessment Records
Appendix 15-2. Agricultural Landowner Survey Template
Appendix 15-3. Agricultural Plan
Appendix 15-4. Drainage Remediation Plan

Acronym List

CDL	Cropland Data Layer
CLCPA	Climate Leadership and Community Protection Act
EGTS	Eastern Gas and Transmission Storage
GPS	Global Positioning System
HDD	horizontal directional drilling
kV	kilovolt
LOD	limit of disturbance
MSG	Mineral Soil Group
NAACC	North Atlantic Aquatic Connectivity Collaborative
NASS	National Agricultural Statistics Service
NYCRR	New York Codes, Rules and Regulations
NYS	New York State
NYSDAM	New York State Department of Agriculture and Markets
NYSDAM Guidelines	NYSDAM guidance document “Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands”, dated October of 2019
NYSDTF	New York State Department of Taxation and Finance
NYSLCS	New York State Agricultural Land Classification System
ORES	Office of Renewable Energy Siting and Electric Transmission
POI	point of interconnection
SWCD	Soil and Water Conservation District
USDA	United Stated Department of Agriculture
USGS	United States Geological Survey

Glossary Terms

Applicant	Flat Creek Solar NY LLC, a subsidiary of Cordelio Power LP, the entity seeking a siting permit for the Facility from the Office of Renewable Energy Siting and Electric Transmission (ORES) under Article VIII of the New York State Public Service Law.
Facility	Flat Creek Solar, a 300 MW solar generating facility located in the Towns of Root and Canajoharie, NY. The proposed Facility components to be constructed for the generation, collection, and distribution of energy for Flat Creek Solar include solar panel modules, electrical collection system, collection substation, point of interconnection (POI) switchyard, access roads, laydown/staging areas, and other ancillary facilities.
Facility Site	The participating parcels encompassing Facility components, which totals approximately 3,794 acres in the Towns of Canajoharie and Root, Montgomery County, New York (Figure 2-1).
Study Area	The Study Area for the Facility includes a radius of five miles around the Facility Site boundary, unless otherwise noted for a specific resource study or Exhibit. The 5-mile Study Area encompasses approximately 108,667 acres, inclusive of the approximately 3,794-acre Facility Site.
Limit of Disturbance (LOD)	The area to which temporary construction impacts will occur, totaling approximately 1,637 acres.

Exhibit 15: Agricultural Resources

15(a) Assessment of Agricultural Resources

16 New York Codes, Rules and Regulations (NYCRR) § 1100-2.16(a) and (b) requires an assessment within the Study Area, with data sets and mapping/illustration information at both the tax parcel level and/or the site level. Pursuant to 16 NYCRR § 1100-1.2(bx), "Study area means the area generally related to the nature of the technology and the setting of the proposed site. Unless otherwise provided in this Part, for facilities within components spread across a rural landscape, the study area shall at a minimum include the area within a radius of at least 5 miles from all generating facility components, interconnections, and related facilities." Therefore, this section includes an assessment of agricultural land use within five miles of the Facility Site, unless otherwise noted or required in 16 NYCRR §1100-2.16.

In 2019, former New York State (NYS) Governor Andrew M. Cuomo introduced the Green New Deal and signed the Climate Leadership and Community Protection Act (CLCPA) into law. The purpose of these policies was to reduce carbon emissions in New York State. More specifically, the CLCPA's goal included an increase in NYS renewable electricity to 70 percent by 2030 and 100 percent carbon free electricity by 2040 (SEP Amendment, 2020). In order to meet these goals, renewable energy projects need to be developed in throughout NYS. Agricultural land is one cover type in NYS that can be converted to a renewable energy facility (for the life of the facility) and then be converted back to agricultural use upon decommissioning; benefiting the agricultural soils by taking a break from the constant wear and tear on them from year-to-year agricultural practices. To protect the valuable agricultural land in NYS during renewable energy project development, there are policies in place for agricultural land protection, including agricultural districts, and guidelines for mitigation of construction impacts on agricultural land, including efforts to avoid, minimize, and mitigate some potential impacts associated with construction and operation of utility-scale solar development (Clean Energy Standard, 2020). Renewable projects like Flat Creek Solar Energy are necessary to meet NYS's CLCPA's goals while following the applicable policies that are in place to protect NYS's agricultural lands. See Exhibit 17 for further discussion on Consistency with Energy Planning Objectives.

(1) NYS-Certified Agricultural Districts

Within Montgomery County, there are three certified agricultural districts (Montgomery County Agricultural District 1, Montgomery County Agricultural District 2, and Montgomery County

Agricultural District 3). These three agricultural districts combined total 177,062 acres and make up approximately 68 percent of the land within the county (New York State Department of Agriculture and Markets [NYSDAM], 2022a). The Agricultural Districts Law, (Article 25-AA, Section 305-A of the New York State Agriculture and Markets Law) Section 303b allows land to be added to certified agricultural districts through an annual process. However, land within certified agricultural districts can only be removed from districts as part of a mandatory 8-year review. Below identifies when each agricultural district was created and when it is due for its 8-year review.

- Montgomery County Agricultural District 1: Created January 1974; Next Review January 2030.
- Montgomery County Agricultural District 2: Created May 1975; Next Review May 2025.
- Montgomery County Agricultural District 3: Created July 1975; Next Review July 2027.

Portions of the Facility Site are within Montgomery County Agricultural Districts 1 and 3. Of the 44 tax parcels within the Facility Site, 41 parcels (or 3,643.4 acres or 96.0 percent of the Facility Site) are currently enrolled within Montgomery County Agricultural Districts 1 and 3. This accounts for only 2.1 percent of the total agricultural district land within Montgomery County. Tax parcels within certified agricultural districts within the Facility Site are inventoried below in Table 15-1 and can be viewed on Figure 3-2 in Exhibit 3.

Table 15-1. Facility Site Parcels Within an Agricultural District

Montgomery County Agricultural District 1 (Town of Canajoharie)			
110.-1-9	80.-2-14.2	79.-2-12.1	80.-2-17.11
79.-2-14	96.-1-1.11	79.-2-15.11	96.-1-6
80.-2-13.111			
Montgomery County Agricultural District 3 (Town of Root)			
96.-1-6	111.-1-24.12	111.-1-5.211	112.-1-16.112
111.-1-1	111.-1-26.1	111.-2-1	112.-1-21.3
111.-1-11.11	111.-1-38.12	112.-1-15.2	112.-1-22.2
111.-1-21.211	111.-1-48	112.-1-16.111	112.-1-24.11
112.-2-10.1	112.-2-10.2	96.-2-6	96.-3-10

Table 15-1. Facility Site Parcels Within an Agricultural District

96.-3-12	96.-3-13	96.-3-14	96.-3-3
96.-3-4	96.-3-8	96.-3-9	97.-1-37.11
97.-1-38.2	97.-1-39	97.-1-6	96.-3-7

The 5-mile Study Area, which encompasses approximately 108,667 acres, includes lands in Montgomery and Schoharie Counties. Portions of the Study Area are within Montgomery County Agricultural Districts 1, 2, and 3, and Schoharie County Agricultural District 3. Specifically, there are 82,557.6 acres of land designated as agricultural districts (68,921.2 acres within Montgomery County and 13,636.4 acres within Schoharie County).

Within Schoharie County, there are four certified agricultural districts (Schoharie County Agricultural District 1, Schoharie County Agricultural District 2, Schoharie County Agricultural District 3, and Schoharie County Agricultural District 4). The four agricultural districts combined total approximately 144,201 acres and make up approximately 36 percent of land within the county (NYSDAM, 2022a). Below identifies when each agricultural district was created and when its most recent 8-year review was conducted.

- Schoharie County Agricultural District 1: Created May 1972; Last Review May 2020.
- Schoharie County Agricultural District 2: Created December 1979; Last Review December 2019.
- Schoharie County Agricultural District 3: Created September 1974; Last Review September 2015.
- Schoharie County Agricultural District 4: Created May 1984; Last Review May 2016.

(2) Real Property Agricultural Value Assessment

The New York State Legislature enacted the New York Agricultural Districts Law in 1971. This Law 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, which is determined through the New York State Land Classification System (New York State Department of Taxation and Finance [NYSDTF], 2021). It is estimated that New York's Agricultural Assessment program reduces property tax costs for New York farmers by $170 million annually (New York State

Comptroller 2019). The enrollment of a parcel in the Agricultural Assessment program does not mean that the entirety of the parcel is active agricultural land.

To determine if there are parcels within the Facility Site and Study Area that receive real property agricultural assessments, the Applicant consulted with the Tax Assessors for Montgomery and Schoharie Counties for all Towns and Villages within the Study Area. As of June 2024, there are 36 parcels within the Facility Site that received Real Property Agricultural Assessments. Additionally, the Applicant requested records of parcels within each municipality in the Study Area that have received Real Property Agricultural Assessments. Based on the records provided, there are 212 parcels within the Town of Root, 292 parcels within the Town of Canajoharie, 270 parcels within the Town of Glen, 278 parcels within the Town of Minden, 202 parcels within the Town of Mohawk, 282 parcels within the Town of Palatine, 60 parcels within the Town of Charleston, 179 parcels within the Town of Carlisle, 4 parcels within the Village of Sharon Springs, and 177 parcels within the Town of Sharon. Additional details of Real Property Agricultural Assessments can be found in Appendix 15-1 of this Application. Parcels located within the Facility Site have been highlighted.

(3) Zoning Districts or Overlay Zones

The proposed Facility Site is located within the Towns of Root and Canajoharie in Montgomery County, New York, both of which have enacted local laws with regards to solar energy.

According to the Solar Energy Local Law for the Town of Canajoharie (Local Law No. 2 of 2023), the Facility is classified as a Tier 3 Solar Energy System. These systems are subject to specific regulations and requirements in Article 8 of the local solar law. These include, but are not limited to, height standards, setback requirements, lot coverage requirements, noise level requirements, fencing requirements, and signage, lighting, glare, and visual requirements. Specific requirements regarding agricultural resources in the Town of Canajoharie are as follows.

- *"When proposed on Active Agricultural Land located within an Agricultural District designated under Section 303 of the NYS Agricultural and Markets Law, a Tier 3 Solar Collector System components, equipment, and associated impervious surfaces shall occupy no more than 20% of any Prime and other Important Farmlands, but in no case shall it exceed 15 acres of such Prime and other Important Farmlands. Tier 3 Solar Collector Systems shall, to the maximum extent practical, avoid impacts to Active Agricultural Land and Productive Agricultural Land."*

- *"To the maximum extent practicable, Tier 3 Solar Collector Systems located on Prime and other Important Farmlands shall be constructed, monitored, and decommissioned in accordance with the NYSDAM's "Guidelines for Solar Energy Projects - Construction Mitigation for Agricultural Lands."*

The Town of Canajoharie's Solar Energy Law contains a lot coverage restriction of no more than 20% and/or 15 acres of Prime or other Important Farmlands. The Facility cannot be designed to comply with this provision due to its extremely restrictive nature; therefore, the Applicant is seeking a waiver of this provision. See Exhibit 24 for further discussion on waivers.

As discussed throughout this Exhibit, to the maximum extent practicable, the Applicant has sited Facility components to minimize impacts to agricultural lands within the Facility Site and will comply with the NYSDAM guidance document "Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands", dated October of 2019 (NYSDAM Guidelines) (NYSDAM, 2019) during the construction, monitoring, and decommissioning phases.

According to the Town of Canajoharie Zoning Map, the Facility Site is located within the Agricultural/Rural Residential zoning district (Town of Canajoharie, 2001). The Facility is permitted in this zoning district as a special use.

According to the Solar Energy Facilities Law of the Town of Root (Local Law No. 1 of 2024), the Facility is classified as a Utility-Scale Solar Energy System. These systems are subject to specific regulations and requirements in Article 7 of the local solar law. These include, but are not limited to, code compliance requirements, fencing and signage requirements, visual impact requirements, panel height requirements, blasting requirements, and lot coverage and lighting requirements. Specific requirements regarding agricultural resources in the Town of Root are as follows.

- *"Solar energy systems shall be limited to no more than 40 percent, down from 80% allowable coverage of land that is not ideal for normal agriculture, of the total acreage on prime agricultural areas classified by the NYS Department of Agriculture and Markets' Agricultural Land Classification as mineral soils groups 1 through 4. All solar energy systems shall adhere to the Department of Agriculture and Markets' Guidelines for Construction Mitigation for Agricultural Lands."*

- *"Solar Energy System may exceed the forty percent [40%] coverage threshold if it incorporates an onsite activity or program which provides for the use of the land as an agrivoltaics Farming Operation and related agrivoltaics. Exceedance beyond the 40% threshold will only be allowed based on the Town Board determination that the Land is being used for a Farm Operation (ex. growing crops or raising livestock) and related agrivoltaics. An eighty percent [80%] maximum lot coverage will be permitted for solar energy systems that accommodate farming operations, subject to the following conditions:*
    - *Fencing shall include gates large enough to accommodate farming equipment; and*
    - *If necessary, a maintenance barn or shed shall be provided to store farming equipment and supplies; and, if raising livestock*
    - *If there is no other shelter accessible by the livestock, a barn and shaded areas shall be provided for livestock; and*
    - *If no water source exists, a pond or similar must be provided for livestock."*

- *"Subject to discretion of the Town Board if the landowner demonstrates that - notwithstanding the classification as prime farmland - the land cannot reasonably be made profitable as farming operation due to flooding, high water table, wetlands, saturated soils, erosion, rocky conditions, lack of minerals, poor soil temperature, steep slopes, or similar conditions as approved by the Town Board, the Solar Energy Facility shall be permitted to occupy eighty percent [80%] of the Prime Farmland within the Facility Area."*
- *"To the maximum extent practicable, utility-scale Solar Energy Systems located on Prime Farmland shall be constructed, monitored, and decommissioned in accordance with the NYS Department of Agriculture and Markets' "Guidelines for Solar Energy Projects - Construction Mitigation for Agricultural Lands."*

The percentage of lot coverage on soils classified as MSGs 1-4 per parcel all fall well below the 40% threshold (lot coverage percentages per parcel range from 0.1 to 13.8 percent). Therefore, the Applicant will not be requesting a waiver for this local law.

The Town of Root does not have a local zoning law or map, and the Town's Solar Energy Law does not contain restrictions on the construction and operation of Utility-Scale Solar Energy Systems within certain zoning districts.

The Study Area consists of the Towns of Canajoharie, Root, Glen, Minden, Charleston, Carlilse, and Mohawk, and the Villages of Nelliston, Fort Plain, Canajoharie, and Sharon Springs. Existing and proposed zoning districts within the Study Area and the associated permitted and prohibited uses are discussed in Exhibit 3. Zoning within the Study Area can be viewed on Figure 3-4.

(4) Agricultural Land Uses Compared to Non-agricultural Land Uses

According to recent (2023) United States Department of Agriculture (USDA) National Agricultural Statistics Service (NASS) Cropland Data Layer (CDL) data, there are approximately 56,398.4 acres of agricultural land within the Study Area, covering 51.9 percent of the total land cover within the Study Area. The dominant agricultural uses within the Study Area (by acreage) include grassland/pasture, other hay/non alfalfa, corn, alfalfa, and soybeans. To a lesser extent, agricultural lands in the Study Area also produce oats, winter wheat, rye, buckwheat, pumpkins, clover/wildflowers, triticale, sunflowers, sorghum, sod/grass seed, blueberries, Christmas trees, dry beans, barley, apples, grapes, peas, and other miscellaneous vegetables and fruits. There are 52,268.1 acres, or 48.1 percent of the Study Area, of non-agriculture land cover (i.e., developed, woodland/forested area, successional non-agriculture areas, wetlands, and barren land) (USDA, 2023).

Of the approximately 3,794 acres within the Facility Site, there are 2,729.1 acres of active agricultural land as identified by the CDL, accounting for 71.9 percent of the total Facility Site. The dominant agricultural uses within the Facility Site (by acreage) include corn, other hay/non alfalfa, grassland/pasture, alfalfa, and soybeans. To a lesser extent, agricultural lands in the Facility Site also produce rye, clover/wildflowers, Christmas trees, sod/grass seed, winter wheat, sunflower, and oats. The remaining 1,064.6 acres of land, or 28.1 percent of the Facility Site, consists of non-agriculture land cover.

Table 15-2 below summarizes the land cover within the Facility Site and the Study Area according to the USDA 2023 CDL, and the results can be seen in Figure 15-1.

Table 15-2. Cropland within the Facility Site and Study Area

Land Cover Classification	Acreage within Facility Site	Percentage of the Facility Site	Acreage within Study Area	Percentage of the Study Area
Alfalfa	236.72	6.24	6,249.71	5.75
Apples	-	-	1.78	<0.01

Table 15-2. Cropland within the Facility Site and Study Area

Land Cover Classification	Acreage within Facility Site	Percentage of the Facility Site	Acreage within Study Area	Percentage of the Study Area
Barley	-	-	2.01	<0.01
Blueberries	-	-	2.67	<0.01
Buckwheat	-	-	20.90	0.02
Christmas Trees	0.22	<0.01	2.67	<0.01
Clover/Wildflowers	0.44	0.01	9.34	0.01
Corn	842.96	22.22	8,455.94	7.78
Dry Beans	-	-	2.22	<0.01
Fallow/Idle Cropland	-	-	22.68	0.02
Grapes	-	-	0.22	<0.01
Grassland/Pasture	616.21	16.24	23,752.57	21.86
Oats	0.22	<0.01	281.92	0.26
Other Hay/Non Alfalfa	820.73	21.63	15,453.11	14.22
Peas	-	-	0.22	<0.01
Pumpkins	-	-	12.69	0.01
Rye	0.61	0.02	40.68	0.04
Sod/Grass Seed	0.22	<0.01	5.11	<0.01
Sorghum	-	-	5.34	<0.01
Soybeans	209.44	5.52	2,019.69	1.86
Sunflowers	0.22	<0.01	5.78	<0.01
Triticale	-	-	8.67	0.01
Winter Wheat	0.22	<0.01	40.91	0.04
Total Agricultural:	**2,729.11**	**71.93**	**56,398.37**	**51.90**

(5) Existing Energy Infrastructure and Completed Renewable Energy Facilities

Existing utility and energy infrastructure including existing overhead and underground lines for gas and electric have previously been discussed in Exhibit 3 and are included on Figure 3-3. The Eastern Gas and Transmission Storage (EGTS) Natural Gas Pipeline, owned by Berkshire Hathaway Energy Company and operated by EGTS, Inc., traverses centrally though the Facility Site from east to west. Just south of this line is another natural gas pipeline owned by TC Pipelines and operated by Iroquois Gas Transmission System, LP. Additionally, one major electric transmission line traverses through the Facility Site, which is immediately adjacent to the Facility Site boundaries. The transmission line intersects one Facility Site parcel (273600 96.-3-4) that has a ROW easement. This is the 345 kilovolt (kV), NYPA Transmission Line #352, which follows the EGTS Natural Gas Pipeline mentioned above.

Based on the United States Geologic Survey (USGS) Wind Turbine Database, there is one wind turbine located within the Study Area, to the northeast of the Facility Site, located at the property on the corner of County Route 162 and Currytown Road. The individual turbine went online in 2015 and has a turbine ID of 3052515 (USGS, 2023). There is one proposed solar facility located within the Study Area, Mohawk Solar (90.5 MW). This facility is proposed in the Canajoharie and Minden Townships within Montgomery County, New York, and is proposed to cover up to 900 acres of land. Additionally, the proposed Mill Point Solar I Project (250 MW) and the operational East Point Energy Center (50 MW) are located 7.3 miles northeast and 4.2 miles south of the Facility Site, respectively.

(6) Active Agricultural Businesses, Facilities, and/or Infrastructure

An Agricultural Viability Landowner Survey was mailed to each participating landowner in May of 2024. The survey was intended to gain landowner insight and feedback into agricultural use, agricultural production, development restrictions, and drainage systems within the Facility Site. The survey is discussed in further detail below in Section 15(b).

According to the seven landowners who completed the Agricultural Viability Landowner Survey, active farming operations were identified on 35 parcels within the Facility Site. Active agriculture within the Study Area can be viewed on Figure 15-1 and the template of the Agricultural Viability Landowner Survey can be found in Appendix 15-2 of this Application.

Project interaction with known operating farms in the Study Area was minimized based on direct communication with landowners and farm operators during early community discussions and land

acquisition efforts. In particular, landowners and farm operators were consulted to identify parcels for consideration of solar development, while also identifying parcels or portions of parcels in which known operating farms and agricultural practices should be avoided.

(7) Potential Construction Impacts and Methods to Facilitate Farming

During construction of the Facility, agricultural use within the Facility Site may be temporarily constrained due to the installation of collection lines, access roads, and solar panels. However, impacts to agricultural use will be temporary and limited to the area within the Facility fence line and LOD. The Facility will allow for continued agricultural use on parcels excluded from the Facility and will ensure that viable agricultural land being used by the Facility is protected for future use following decommissioning at the end of the Facility's useful life. Following the decommissioning of the Facility, the land will be restored per the NYSDAM *Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands*, dated October 2019 (NYSDAM, 2019).

The Facility Site encompasses approximately 3,794 acres, of which 2,729.1 acres are comprised of active agricultural land, based on CDL data, parcel property class data, and parcels that have had crops three of the last 5 years. The active agricultural land within the Facility Site primarily consists of corn, other hay/non alfalfa, grassland/pasture, alfalfa, and soybeans (based upon CDL data). Of that active agricultural land in the Facility Site, 825.4 acres will be within the Facility fence line for the life of the Facility.

During the construction of the Facility, 29.2 acres of active agricultural land will be impacted from the installation of collection lines and 4.4 acres of active agricultural land will be utilized for access roads outside of the Facility fence line. After construction, areas impacted by collection line installation and areas alongside access roads will be available for continued agricultural production. Post construction, 1,389.8 acres (36.6 percent) of active agricultural land within the Facility Site will be available for continued agricultural production, as it is outside of the fence line. The Facility Site will allow for continued agricultural use on parcels and in areas outside of the LOD during construction.

Underground collection lines will be installed at a depth of 48 inches below ground in active agricultural fields to further minimize impacts to active agricultural land. Once installed and the Facility is operational, farmers will be able to continue regular agricultural operations within buried collection line rights-of-way located outside of the solar array fence. Additionally, the Applicant

will make improvements to and maintain the conditions of existing access roads intended for use during the operational life of the Facility.

Some areas proposed for solar panel arrays will require minor subsurface grading. In these areas, topsoil will be stripped, temporarily stockpiled, and then redistributed following recontouring. Areas of active agricultural land that experience disturbance will be restored and maintained in meadow conditions, in accordance with the Vegetation Management Plan that will be filed as a Compliance Filing prior to the start of construction.

During earth moving activities, best management practices, such as erosion and sediment controls and stormwater management, will be utilized to stabilize soils and to reduce sediment and silt transport. Additionally, impacts to agricultural soils will be minimized through the use of trenchless installation measures (e.g., horizontal directional drilling [HDD]) for some portions of the underground electrical collection lines. Overhead collection lines for the Facility are not proposed in agricultural fields. Following the completion of construction, the Facility Site will be revegetated, which will allow for long-term soil stabilization throughout the life of the Facility.

Solar panels for the Facility Site were chosen based on their efficiency and effectiveness to harness the maximum amount of power while minimizing the total area of land required for conversion. Factors limiting the output of energy such as shading, cloud cover, etc. were also taken into consideration. Solar panel arrays will be located on agricultural land but will utilize mounted racking systems supported by driven posts with minimal excavation, thus reducing overall long-term impacts to agricultural land.

(8) Temporary and Permanent Impacts on Agricultural Resources

There are 2,729.1 acres of agricultural land within the Facility Site. Within those 2,729.1 acres, 1,447.8 acres of disturbance to agricultural land is estimated to occur within the Facility's proposed LOD. The remaining 1,092.1 acres located outside of the Facility's LOD can continue to be used as agricultural lands during the life of the Facility. The disturbance to agricultural lands will be temporary as all components will be removed and the ground restored during decommissioning of the Facility. Therefore, impacts will be either temporary during construction or impacts for the life of the Facility; temporary disturbances will include laydown yards, collection trenches, HDD pits, collection HDD segments, grading, and the LOD, while impacts for the life of the Facility will include disturbances to lands impacted by access roads, fenced area, fence line, solar panel arrays, inverters, POI, substation, MV Feeder, stormwater features, clearing, and

landscaping. The 1,447.8 acres of disturbance to agricultural land will include 230.3 acres of temporary impact (8.4 percent of all agricultural land within the Facility Site) and 1,217.5 acres of impact for the life of the Facility (44.6 percent of all agricultural land within the Facility Site). At the end of the operational life of the Facility, all components will be decommissioned, and the site will be restored to its pre-existing conditions.

Additionally, within the Facility LOD, there are 240.6 acres of soil that are designated as Mineral Soil Groups (MSGs) 1-4. Of the 240.6 acres of MSG 1-4, 230.2 acres are also considered to be active agricultural land. Table 15-3 below includes an itemization of temporary impacts to active agricultural lands within MSGs 1-4 during construction and for the life of the Facility. Within the Facility LOD, there are 1,396.1 acres of MSGs 5-10. Therefore, the majority of impacts (85.3 percent) will occur to MSGs 5-10, with only 14.1 percent occurring within MSGs 1-4. Further discussion on the MSGs in the Facility Site is included below in Section 15(b)(6).

Table 15-3. Impacts to Active Agricultural Lands within MSGs 1-4

Impact Type	Impact to Active Agricultural Lands within MSG 1-4 (acres)
During Construction	
Horizontal directional drilling (HDD) pits	0.05
Collection HDD segments	2.88
Collection line trenches	2.15
Laydown Yards	8.81
Grading	11.16
LOD	17.40
Total	42.45
For the Life of the Facility	
Solar Panels	51.28[1]
Fenced Area	123.58[2]
Fence Line	0.83
Access Roads	6.52

Table 15-3. Impacts to Active Agricultural Lands within MSGs 1-4

Impact Type	Impact to Active Agricultural Lands within MSG 1-4 (acres)
Inverters	0.06
MV Feeder	0.01
POI	-
Substation	-
Stormwater features (infiltration trench, culvert, and storm structure)	0.14
Clearing	2.57
Landscaping	2.80
Total	187.79

[1] This acreage includes impacts to active agricultural lands within MSG 1-4 as a result of panels only and does not include the area/space between the panels.
[2] This area is located between the panels and the fence line.

The Applicant considered several factors when determining the siting of the Facility components (i.e., aquatic features, cultural resources, agricultural lands, and topographic features). To the maximum extent practicable, the Applicant has sited Facility components to minimize impacts to agricultural lands within the Facility Site and will comply with the NYSDAM Guidelines (NYSDAM, 2019). Section 15(c) of this Exhibit details the Applicant's Agricultural Plan (Appendix 15-3) to avoid, minimize, and mitigate impacts to active agricultural lands, to the maximum extent practicable, consistent with NYSDAM Guidelines.

15(b) Agricultural Resource Maps

Agricultural resources maps were created for the Facility's Study Area to illustrate field-verified active agriculture land use (including all lands involved in the production of crops, livestock, and livestock products for three of the last five years), agricultural production acreage proposed to remain in agricultural use, agreed upon landowner-imposed development restrictions (e.g., areas within the Facility Site on which the landowner will not allow development), locations of known or suspected sub-surface drainage systems (including outlets, surface drainages, irrigation lines, or

other unique agricultural facilities), USDA soil mapping for the Facility Site, and New York State Agricultural Land Classification System (NYSLCS) MSGs 1 through 10 for impacted agricultural areas within the Facility Site. Further analysis of each is discussed below.

(1) Agricultural Land Use

Parcels with active agricultural land uses (including all lands involved in the production of crops, livestock, and livestock products for three of the last five years) are shown in Figure 15-1. These agricultural land uses were identified using data available from the USDA NASS CDL data (2023) and were field verified during site visits conducted between 2020 and 2024. The Applicant also compared the data to the Agricultural Land Use Survey results. According to these analyses, there are 35 parcels within the Facility Site that are classified as active agricultural lands.

To assess changes in agricultural land use within the Study Area over the past five years, USDA NASS CDL data was evaluated for the years 2019 to 2023. Agricultural acreage increased from 54,255.2 acres in 2019 to 56,398.4 acres in 2023, and non-agricultural acreages decreased from 54,411.3 acres in 2019 to 52,268.1 acres in 2023. For each year that was analyzed, the top four agricultural categories remained the same; other hay/non-alfalfa and grassland/pasture were consistently the crop categories that covered the greatest amount of land in the Study Area, followed by corn and alfalfa.

(2) Production Acreage Retained for Agricultural Use

As previously discussed in Sections 15(a)(7) and 15(a)(8), 1,092.1 acres of agricultural land within the Facility Site will be located outside of the Facility's LOD and can continue its agricultural use throughout the life of the Facility. The land within the Facility's fence line will be utilized for solar production purposes throughout the life of the Facility; therefore, 1,339.3 acres of land will not be used for agricultural production during that time.

Based on the responses received from the agricultural landowner surveys, owners of eight parcels indicated that they plan to rent/purchase land within the 5-mile Study Area to replace acreage taken out of production due to the Project's construction, and owners of seven parcels indicated that their decision to rent/purchase additional land was yet to be decided. The agricultural land within the Facility's fence line can once again be utilized for agricultural purposes once the Facility is decommissioned and restored. Figure 15-4 illustrates the agricultural production acreage

proposed to remain in agricultural use within the Facility Site, which is approximately 1,092.1 acres.

(3) Landowner Imposed Development Restrictions

The Applicant has consulted with landowners to identify areas of landowner-imposed development restrictions within the Facility Site. These restrictions were intended to preserve land to continue their existing agricultural activities. There are six parcels within the Facility Site that have collection line only easements and are therefore unavailable for hosting solar panels. These parcels will be able to continue their agricultural activities and total 700.9 acres.

(4) Agricultural Drainage Systems

As part of the Agricultural Viability Landowner Survey, landowners were asked to identify drainage tiles, active irrigation lines, surface drainage, and/or other unique agricultural facilities on their property. In their responses to the survey, drainage tiles were identified on 10 parcels within the Facility Site. Based on this analysis, there are approximately 432.7 acres of land within the Facility Site where drain tiles occur. Finally, culverts within the Facility Site were identified and delineated using a global positioning system (GPS) with sub-meter accuracy during onsite wetland and stream delineations. The locations of these culverts are shown on Figure 15-2.

Additionally, the Applicant contacted the Montgomery Soil and Water Conservation District (SWCD), the Montgomery County Department of Public Works, and the Montgomery County Planning Department to request any information on subsurface drainage in and around the Facility Site. At the time of filing of this Application, these departments have not yet provided a response.

The above data can be seen on Figure 15-2. Additionally, further discussion of drainage remediation can be found in Section 15(d) below and within the Drainage Remediation Plan (Appendix 15-4 of this Application).

(5) USDA Soil Map

USDA soil mapping for the Study Area is illustrated in Figure 15-3. A list of all soils present within the Facility Site is provided in Exhibit 10 (Geology, Seismology, and Soils), Table 10-2 in Section 10(a)(12).

(6) NYS Agricultural Land Classification Mineral Soil Group Map

The NYSLCS classifies individual soil types' capability for agricultural production into one of 10 specifically ranked MSGs. The highest quality soil types with the best capability for agriculture are classified as MSG 1, while soils that are least suited for agriculture are classified as MSG 10. MSGs 1-4 are considered the most productive farmland in the state by the NYSLCS and are primarily used for the production of food and fiber, whereas MSGs 5 through 10 are considered to have limitations for agricultural production (NYSDAM, 2019).

Within the Facility Site, soils classified as MSG 1-4 account for 485.9 acres (12.8 percent), and soils classified as MSG 5-10 account for 3,296.7 acres (86.9 percent). Within the LOD, 240.6 acres of MSG 1-4 exist. Of these 240.6 acres, 42.5 acres (17.6 percent) will be temporarily impacted, and 187.8 acres (78.1 percent) will be permanently impacted. These permanent impacts account for 38.7 percent of the soils within the Facility Site classified as MSG 1-4 which is in line with NYSDAM goals to limit the conversion of agricultural areas from solar development (NYSDAM, 2019). Temporarily disturbed soils will be restored in accordance with the NYSDAM Guidelines. The total MSGs 1-4 within the Facility Site are included in Table 15-4 below and can also be viewed on Figure 15-3.

Additional data has been compiled in Table 15-4 to summarize the total area and mapped MSGs 1-4 within the following geographic areas: Facility LOD, Facility Site, Study Area, Town of Root, Town of Canajoharie, Montgomery County, and New York State.

Table 15-4. Mineral Soil Groups Relative to Various Geographic Areas

Geographic Area	Specific Area	Total Acres	Acres of MSGs 1-4	MSGs 1-4 Percent of Total Area	Acres of MSGs 5-10	MSGs 5-10 Percent of Total Area
Town of Root	LOD	1,144.86	131.07	11.45	1,013.72	88.55
	Facility Site	2,461.65	251.50	10.22	2,208.14	89.70
	5-mile Study Area	32,576.46	2,240.70	6.88	29,391.22	90.22
Town of Canajoharie	LOD	428.48	99.62	23.25	328.70	76.71
	Facility Site	1,332.02	234.36	17.59	1,088.51	81.72
	5-mile Study Area	23,263.37	2,367.10	10.18	20,160.95	86.66
	LOD	1,573.34	230.69	14.66	1,342.43	85.32

Table 15-4. Mineral Soil Groups Relative to Various Geographic Areas

Geographic Area	Specific Area	Total Acres	Acres of MSGs 1-4	MSGs 1-4 Percent of Total Area	Acres of MSGs 5-10	MSGs 5-10 Percent of Total Area
Montgomery County	Facility Site	3,793.67	485.86	12.81	3,296.65	86.90
	5-mile Study Area	94,237.83	12,554.20	13.32	78,916.92	83.74
New York State	LOD	1,573.34	230.69	14.66	1,342.43	85.32
	Facility Site	3,793.67	485.86	12.81	3,296.65	86.90
	5-mile Study Area	108,666.49	15,286.43	14.07	90,558.50	83.34

15(c) Agricultural Plan

The Applicant has prepared an Agriculture Plan for the Facility that is consistent with the NYSDAM Guidelines (Sections 1100-15.1(m)(1)(i) and (ii)). The Agricultural Plan is included in Appendix 15-3 of this Exhibit. To the maximum extent practicable, the siting of the Facility avoids, minimizes, and mitigates agricultural impacts to active agricultural lands (i.e., land in active agriculture production defined as active three (3) of the last five (5) years) within MSG 1 through 4). The Applicant will comply with the NYSDAM Guidelines requirements that are specific to restoration, monitoring, and decommissioning (NYSDAM, 2019). The Facility's compliance with the NYSDAM Guidelines is detailed in the Agricultural Plan.

15(d) Drainage Remediation Plan

A Drainage Remediation Plan, included as Appendix 15-4 of this Application, has been developed for the Facility to address inadvertent damages to surface or sub-surface drainage, as well as anticipated repair methods. The likelihood of impacts to drainage features is summarized in Section 15(d)(1) below, and further discussed in Appendix 15-4.

(1) Likelihood of Drainage Impacts Within and Adjacent to the Facility

The Applicant is committed to working with participating landowners to minimize impacts to their sub-surface drainage infrastructure during construction and to determine if there will be unanticipated post-construction impacts as well. Prior to construction, the Applicant, in coordination with the participating landowners, will identify sub-surface drainage infrastructure to the maximum extent practicable. Prior to this application submittal, the Applicant distributed

Agricultural Viability Landowner Survey to participating landowners and specifically requested that landowners identify surface and sub-surface drainage infrastructure on their property. The results from the survey indicated that 10 parcels within the Facility Site contain drainage tiles (Figure 15-2). Based on this analysis, there are 432.7 acres of land within the Facility Site where drain tiles occur. Finally, during onsite wetland and stream delineations, surface drainage features were identified with GPS units with sub-meter location accuracy.

The Facility has been sited to avoid and minimize disruption to identified existing drainage features; therefore, the Applicant does not anticipate permanent impacts to surface or sub-surface drainage infrastructure. However, in the event that surface or sub-surface features are discovered during construction, they will be flagged in the field to facilitate avoidance wherever practicable. Additionally, if impacts to surface or sub-surface infrastructure do occur during construction, components that are damaged will be identified with flags or stakes until evaluation of damage and permanent repairs are completed.

The Facility will be constructed and will operate in accordance with the NYSDAM Guidelines, which specify practices in relation to the maintenance of drainage patterns and features, including the following:

Construction requirements

- The surface of haul roads located outside of the generation facility's security fence and constructed through agricultural fields shall be level with the adjacent field surface. If a level road design is not feasible, all haul roads should be constructed to allow a farm crossing (for specific equipment and livestock) and to restore/ maintain original surface drainage patterns.
- Install culverts and/or waterbars to maintain or improve site specific natural drainage patterns.
- When buried utilities alter the natural stratification of soil horizons and natural soil drainage patterns, rectify the effects with measures such as subsurface intercept drain lines. Consult the local Soil and Water Conservation District concerning the type of intercept drain lines to install to prevent surface seeps and the seasonally prolonged saturation of the conductor installation zone and adjacent areas. Install and/or repair all drain lines according to Natural Resources Conservation Service conservation practice standards

and specifications. Drain tile must meet or exceed the AASHTO M-252 specifications. Repair of subsurface drains tiles should be consistent with the NYSDAM's Guidelines.

Post-construction:

- Regrade all haul roads outside of the security fencing (as determined necessary by the environmental monitor [EM]), to allow for farm equipment crossing and restore original surface drainage patterns, or other drainage pattern incorporated into the design.
- Repair all surface or subsurface drainage structures damaged during construction as close to preconstruction conditions as possible, unless said structures are to be removed as part of the Facility design.
- Correct any surface or subsurface drainage problems resulting from construction of the solar energy project with the appropriate mitigation as determined by the EM, Soil and Water Conservation District and the Landowner.

Prior to construction, the Applicant will hire an independent, third-party EM to oversee all construction and restoration activities and to ensure compliance with all applicable environmental commitments and siting permit requirements. Prior to the commencement of Facility-related construction, an overall site survey will be performed to effectively locate and demarcate the exact location of Facility components and routes. Additionally, the EM, with the support of construction management personnel, will conduct specific site reviews at locations to be impacted, or potentially impacted, by associated construction activities. Pre-construction site reviews will direct attention to previously identified sensitive resources to avoid (e.g., select wetlands and waterbodies, archaeological, or agricultural resources), as well as to the limits of clearing, location of drainage features (e.g., culverts, ditches), location of existing underground pipelines and utilities, known locations of agricultural tile lines, and to the layout of erosion and sediment control measures. Work area limits will be defined prior to construction using flagging, staking, and/or fencing.

(2) Anticipated Repair Methods

As discussed above in Section 15(d), the Applicant prepared a Drainage Remediation Plan (Appendix 15-4) to address inadvertent damages to surface and sub-surface drainage as a result of Facility construction. Prior to construction, existing drain tile and subsurface drainage will be identified as much as reasonably possible according to consultation between the Applicant and landowners, responses from the Agricultural Viability Landowner Survey, onsite wetland delineations efforts, and publicly available data previously discussed in Section 15(b)(4). Existing

drain tile and subsurface drainage features within the LOD will be monitored for damages during construction and post-construction. If Facility construction damages the existing drain tile or subsurface drainage, replacement or repairs will be consistent with the NYSDAM's "*Repair of Severed Tile Line*" in the NYSDAM Guidelines to the maximum extent practicable. The Applicant will coordinate with the landowner to monitor drain tiles post-construction to ensure that repairs are properly functioning.

15(e) Feasibility of Agricultural Co-utilization

There are no co-utilization agricultural activities (e.g., sheep grazing within fenced panel areas, apiaries, etc.) planned within the Facility's fence line at this time. Therefore, a Co-Utilization Plan is not proposed for this Facility. However, existing agricultural activities outside of the fence line and on adjacent parcels are anticipated to continue. The Applicant worked with participating landowners to identify development restrictions to allow for continued agricultural use, and land outside the Facility fence line remains available to landowners for agricultural use.

To reduce the need for additional land for placement of components (e.g., collection lines and access roads), the Facility has been designed to prioritize parcels with contiguous proximity to one another. Designing the Facility in this way helps to condense and reduce permanent impacts to land and to reduce interference with existing adjacent land uses, such as agricultural production.

As previously stated, agricultural land within the fence line will be restored to its original condition and made available for agricultural use following the Facility's useful life. Additional information regarding site restoration and decommissioning can be found in Exhibit 23.

References

New York State Energy Plan (SEP) Amendment (2020). Available at: https://energyplan.ny.gov/The-Board/Board-Meetings. Accessed March 2024.

New York State Department of Agriculture and Markets (NYSDAM). (2019). Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands. Available at: https://agriculture.ny.gov/system/files/documents/2019/10/solar_energy_guidelines.pdf. Accessed March 2024.

New York State Department of Taxation and Finance (NYSDTF) (2021). Agricultural assessment program: overview. Available at: https://www.tax.ny.gov/research/property/assess/valuation/ag_overview.htm. Accessed March 2024.

Office of the New York State Comptroller (2019). A Profile of Agriculture in New York State. https://www.osc.state.ny.us/files/reports/special-topics/pdf/agriculture-report-2019.pdf. Accessed March 2024.

State Energy Plan (SEP). (2020). Amendment. Available online at: https://energyplan.ny.gov/. Accessed March 2024.

Town of Canajoharie. (2001). Zoning Map. Available online at: https://www.co.montgomery.ny.us/Web/municipal/tcanajoharie/Documents/ZoningBoard/TownofCanajoharieZoningMap.pdf. Accessed March 2024.

USDA. (2023). National Agricultural Statistics Service (NASS) Cropland Data Layer (CDL). Available at: https://nassgeodata.gmu.edu/CropScape/. March 2024.

USGS. (2023). USGS Wind Turbine Database. Available online at: https://eerscmap.usgs.gov/uswtdb/viewer/#3/37.25/-96.25. March 2024.

Valayamkunnath, P., M. Barlage, F. Chen, D. J. Gochis and K. J. Franz. (2020). Mapping of 30-meter resolution tile-drained croplands using a geospatial modeling approach. Sci Data (7): 257. https://doi.org/10.1038/s41597-020-00596-x. March 2024.