

ISSUE PAPER SERIES

Planning for Solar Energy Projects

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NEW YORK STATE TUG HILL COMMISSION

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Cornell Cooperative Extensions of Jefferson, Lewis, Oneida and Oswego Counties
Development Authority of the North Country
Jefferson, Lewis, Oneida, Oswego and St. Lawrence County Planning Departments
Jefferson and Lewis County Industrial Development Agencies
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The Tug Hill Commission Technical and Issue Paper Series are designed to help local officials and citizens in the Tug Hill region and other rural parts of New York State. The Technical Paper Series provides guidance on procedures based on questions frequently received by the Commission. The Issue Paper Series provides background on key issues facing the region without taking advocacy positions. Other papers in each series are available from the Tug Hill Commission. Please call us or visit our website for more information.



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Front Cover Photograph Courtesy Lewis County Planning Department, of the Lewis County Solar Array, Outer Stowe Street, Lowville, NY

Introduction

Renewable energy production deployment is increasing for many reasons, including improved technology, consumer trends, federal and state tax incentives, and new laws that encourage expansion. In New York State, the 2019 Climate Leadership and Community Protection Act has caused a significant increase in proposed solar facilities on Tug Hill and in other rural areas.

This paper summarizes issues and considerations related to large-scale solar development at the time of publication. Technology, installation, and siting considerations are quickly evolving. The paper describes the different scales of solar energy systems, where they are often sited, and land use considerations. Planning tools and financial considerations for municipalities are also discussed. Language and document examples and templates are provided for use in Tug Hill and other rural communities.

The Climate Leadership and Community Protection Act

The New York State Climate Leadership and Community Protection Act (Climate Act), signed into law in July 2019, amends Environmental Conservation Law, Public Service Law, Public Authorities Law, Labor Law, and the Community Risk and Resiliency Act. The purpose of the Climate Act is to adopt measures to put New York on a path to reduce statewide greenhouse gas emissions by 85% percent by 2050 and net zero emissions in all sectors of the economy, through the development of a scoping plan. The goals of the Climate Act are: (1) greenhouse gas emissions reduction, (2) renewable energy development, (3) improved energy efficiency, (4) a clean energy economy, and (5) resilient and distributed energy systems¹. Specifically related to solar energy, the law states that New York will:

- Increase the Renewable Energy Standard to 70% by 2030
- Double the target for distributed solar power to 6 gigawatts by 2025 and 10 gigawatts by 2030
- Install 1.5 gigawatts of statewide energy storage capacity by 2025 and 6 gigawatts by 2030.

For reference, one megawatt (MW) of energy can power approximately 150 homes, conservatively. To produce 1 MW of solar energy, approximately four to seven acres of solar panels are needed. Theoretically, a 4 MW project (i.e. 24 acres of solar panels) could power all the homes in the village of Adams.

The Accelerated Renewable Energy Growth and Community Protection Act

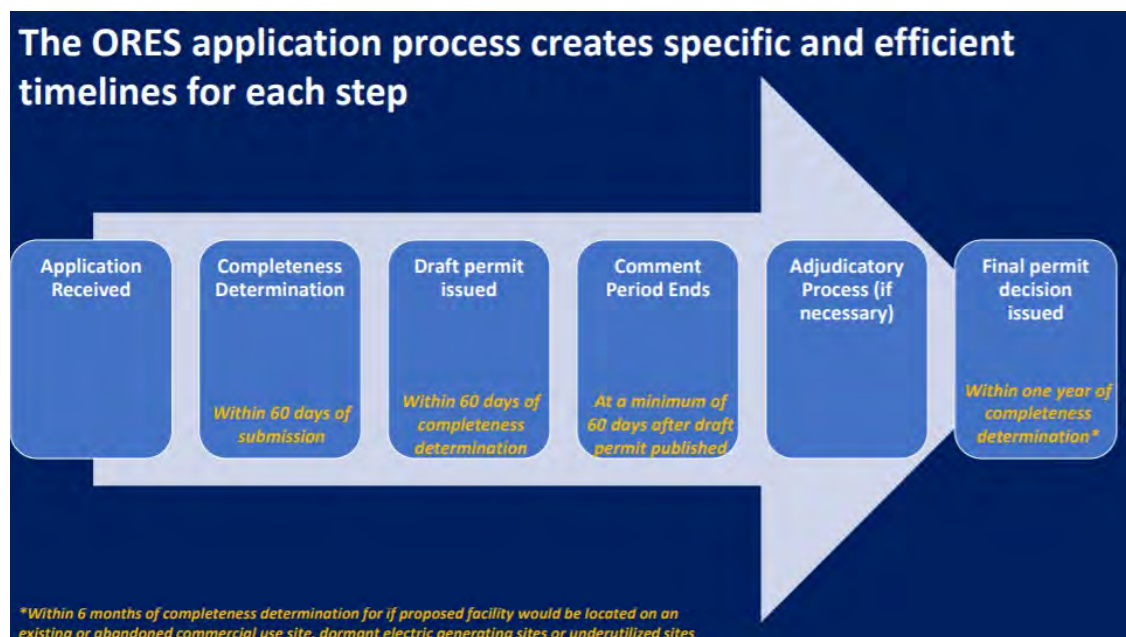
New York State passed the Accelerated Renewable Energy Growth and Community Protection Act in the Fiscal Year 2020-21 state budget. With the goal of 70% of New York State's electricity generated using renewable energy by 2030 in mind, the Act added Section 94-c to New York State Executive Law and created the Office of Renewable Energy Siting (ORES) to "to improve and streamline the process for environmentally responsible and cost-effective siting of large-scale renewable energy projects across New York while delivering health, environmental, and economic benefits to local communities."² ORES is charged with:³

1. Establishing regulations and uniform standards for large, renewable energy projects, and identifying mitigation measures to address environmental impacts.

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2. Requiring that uniform and site-specific standards and conditions must achieve a net conservation benefit to any impacted endangered and threatened species.
3. Authorizing DEC to use funds from projects permitted through the new siting office to implement an endangered and threatened species mitigation bank fund.
4. Developing draft permits for public comment and local community input and ensuring that complete applications are acted upon within one year, except in the case of certain former commercial and industrial sites, which will be reviewed within six months.

Part of the new siting process requires ORES to abide by numerous time requirements to respond to applications in an attempt to allow for the determination of permits more quickly. The timeline is summed up by this slide from the NYS Energy Research & Development Authority (NYSERDA):



By replacing Article 10 with a new siting process referred to as Section 94-c, all large-scale, renewable energy projects 25 MW or larger will be required to seek an approved permit through ORES for new construction or expansion. ORES has the authority to issue a single permit for the construction of major renewable energy facilities from both a state and local law perspective, but applicants will still be required to obtain any approvals necessary under federal law, including federally delegated permits. Renewable energy projects between 20-25 MW have the option of choosing the ORES process or going through local zoning review. Previously, renewable energy projects 25 MW or larger went through Article 10 of Public Service Law. All solar projects in the Tug Hill Commission's service area that were in the Article 10 process have transferred to the ORES process. According to the Department of Public Service website, the projects in the Tug Hill area in the ORES process are Alder Creek Solar (Boonville and Forestport), and Greens Corners Solar (Hounsfield and Watertown). To see what projects have been proposed, accompanying documents and required documents of the applicants, you can visit the permit applications section of the ORES' website.

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The Section 94-c process requires ORES to apply local standards (including zoning) to projects unless ORES makes a finding that the local regulations are unreasonably burdensome in view of the CLCPA targets and the environmental benefits of the proposed project.⁴

Community Perception

The 2019 Tug Hill Residents and Landowners Survey, conducted by Jefferson Community College, included a question about solar energy. One-thousand respondents were asked whether they thought solar energy development should be increased, kept but not increased, decreased, or not sure. Respondents overwhelmingly chose "increase" (70%), followed by "keep, but do not increase" (22%), decrease (4%), and "not sure" (3%). The survey has a 3% margin of error⁵.

At a more local level, questions regarding solar energy are almost always included in town-level surveys. These surveys are typically used at the beginning of the comprehensive planning process. For instance, a 2021 survey for the town and village of Lowville joint comprehensive plan included questions that asked respondents to rank their feelings about encouraging solar development within the town and village respectively. Both town and village residents showed broad support for encouraging solar development and that was incorporated into the goals and strategies section of the plan. Importantly, the plan notes that any renewable energy project should promote prime farmland protection and farmland mitigation plans. It is important to have community input when it comes to solar development, particularly utility-scale solar. Communities can properly plan for large solar projects if they understand the thoughts and concerns of their residents.

The Different Scales of Solar

There are three important factors to consider when defining solar: whether the energy will be consumed primarily onsite or offsite, the physical size of the system, and the system's energy production capacity. Onsite solar systems are typically small roof or ground mounted systems that power the property on which they are located. While local governments should plan for their growing popularity, these accessory solar installations are not the focus of this paper. Furthermore, while a good opportunity for home and business owners, small solar is capped at 110% of the property owner's usage and therefore is not a significant contributor to NYS renewable energy goals. More detailed information about solar for residential or business use is available on the New York State Energy Research & Development Authority (NYSERDA) NY-Sun website⁶.

Large-scale systems are composed of large ground-mounted arrays of photovoltaic panels that supply power to the grid to be consumed on other properties. A solar energy system's capacity is how much energy is produced at the facility, which is often measured in kilowatts or megawatts.

Community-Scale Solar

Community solar is a group of solar panels connected to the local electricity grid. Once the panels are turned on and generating electricity, clean energy from the site feeds into the local power grid.⁷ The localized nature of these projects is what differentiates them from utility-scale solar. Community-scale solar aims to provide clean energy to smaller municipalities and some community-scale solar projects can also have a small battery energy storage system (BESS) to ensure that some energy can be stored.

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Community solar allows individuals, businesses and communities to support solar energy without installing solar panels on their own property. There are little to no upfront costs by utilizing a local community-scale solar project. Customers can save money every month on their electric bill, lowering their carbon footprint and supporting the local economy by buying energy from local sources, and there is minimal commitment to using solar energy long term.

For purposes of this paper, community-scale solar includes projects that take advantage of NYSEERDA's NY-Sun solar incentives. To qualify, individual projects must be 5 MWac or less but may be grouped together in a series of ≤ 5 MWac projects. These projects sell energy to local subscribers and provide taxing jurisdictions with payments in lieu of taxes (PILOT) agreements which range from \$5,000-\$7,500 per MW. Both utility scale projects and smaller, distributed energy projects like community solar generate renewable energy credits (RECs) that utilities can purchase to demonstrate compliance with the state's 70 by 30 requirement.

One example of community-scale solar is the Black River Solar project by Nexamp near the village of Black River, Jefferson County. According to the Nexamp website, "the project generates approximately 5.6 megawatts of clean, renewable energy from more than 14,000 solar panels installed across the site."⁸ The energy produced by the site, which is around 40 acres, is enough to power about 750 homes in the area.⁹ Another example exists in the village of Chaumont, Jefferson County. In 2022, Norbut Solar Farms completed the construction of one large project consisting of five separate solar arrays across 236 acres. In total, the project produces just over 35 MW of energy and has 69 MWh storage capacity. There are three arrays that produce 7.747 MW, one array that produces 7.132 MW, and one array that produces 4.650 MW.

Another example of community-scale solar is the Hillsboro solar farm in the town of Camden, Oneida County. The project was developed by Green Street Power Partners and is operated by Nelnet. It produces 3.5 MW of power on about 16 acres of land for local customers. According to the website, the solar project can provide power for 467 customers, of which all the spots have been reserved.¹⁰

Utility-Scale Solar

Utility-scale solar projects sell electricity into the grid at wholesale prices and are subsidized by the sale of renewable energy credits. These projects can be 5 MW or larger, but experience shows that they typically start around 20 MW and can be as large as 200 MW or more. There has been an increase in proposed utility-scale solar projects proposed in the four counties that cover Tug Hill. Now that Section 94-c and the Office of Renewable Energy Siting has been established and has processed numerous projects, it is possible that the increase in the number of solar projects being proposed may be due to the clarity and guaranteed timelines of the new Section 94-c process.

For example, in Lewis County, at the time of this paper being written, two new projects over 100 MW each were proposed in New Bremen and Croghan by Advanced Energy Solution (AES), a company based in Illinois. Another example from Oneida County is a 200 MW solar array within Boonville and Foresport that was proposed in 2020 by Apex Clean Energy, a company based in Virginia. The developer Boralex has two proposed projects in Jefferson County.^{11 12} Their Greens Corners project, located in the towns of Watertown and Hounsfield, is proposed to be 120 MW and has been approved and granted a siting permit. Boralex opted to transfer into the Section 94-c process, and thus received a decision from ORES within a year. Their website reads, "Boralex

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received a final siting permit on September 22, 2022. We anticipate beginning construction Q4 2023 and commissioning the site Q4 2024.” Their Sandy Creek project, located in the towns of Adams and Ellisburg, is a 20 MW project that received a Tier 1 Renewable Energy Credit from NYSEDA in January of 2020, and is expected to be commercially operational in July of 2023.

Evolving Technology

Solar panel technology and installation best practices are quickly evolving as the industry matures. The newest technology includes possible alternatives to the traditional silicon-based panels, pyramidal lenses to focus the sunlight into a smaller area for more concentrated energy, and tandem solar cells which use a two-sided approach with perovskite on one side and silicon on the other. Currently, monocrystalline, polycrystalline, and thin-film panels are the most utilized because of their cost effectiveness and relatively easier manufacturing process.¹³ Panels can also be installed with single-access tracking systems in a north-south orientation with more space between panels, allowing snow to be shed by putting the panels in a vertical position. The best foundations for panel installation are site specific, considering soil characteristics and local climate conditions, and range from steel superstructures to anchor systems with ground screws, or ballast systems made with concrete¹⁴. Currently, the cost of a kw/h is around 6-8 cents and slowly dropping. SunShot 2030 is an initiative to get the cost of one kw/h of utility-scale solar to 3 cents. Also, the Department of Energy hopes that residential solar will reach 4 cents per kw/h, and residential solar will reach 5 cents per kw/h by 2030. This would make solar power competitive, and in some cases, cheaper than existing fossil fuel energy sources, and would help to transition energy consumption away from fossil fuel usage.¹⁵

Storage and Transmission

Battery Energy Storage Systems (BESS)

Given the intermittent nature of solar power, storage is an important element. Battery energy storage systems dispatch stored energy for use during peak power demand. National Grid installed the first battery storage in its service area in June 2019 in the village of Pulaski. The Pulaski 2 MW storage system is designed to sustain a 2,000-kW customer demand, or the equivalent of

WHAT IS A RENEWABLE ENERGY CREDIT?

The NYS Public Service Commission (PSC) adopted a Clean Energy Standard (CES) in August 2016 which mandated that 50% of the electricity produced in New York State be considered “renewable” by 2030 (known as 50 by 30). The Renewable Energy Standard (RES) is part of the CES and has two components: increase the amount of renewable electricity generated through the purchase of Renewable Energy Credits (RECs), and obligate electricity suppliers (i.e. National Grid) to purchase increasing amounts of renewable energy.

For the first component – increasing renewable electricity generation through RECs – NYSEDA annually solicits projects from generators and developers of renewable energy. Three annual REC project announcements to date and include significant funding to provide a secure source of revenue to move the projects through the development process. Below is a sampling of funded projects to date:

2019 solicitation: Sandy Creek Solar in Jefferson County, Greens Corners Solar in Jefferson County

2020 solicitation: Rutland Center Solar 1 in Jefferson County, Tracy Solar Energy Center in Jefferson County

2021 solicitation: None in the North Country Region

The 2022 solicitation announcements have not been made yet. Information about the pending proposals can be found on NYSEDA’s website.

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powering approximately 1,600 homes for up to two hours. The project benefits include increasing the resiliency of the electricity network while modernizing the distribution system, deferring infrastructure and system upgrades, and reducing system peak loads¹⁶.

National Grid is also working on an upgrade to their substation on Coffeen Street in Watertown using a new solution called a Non-Wires Alternative (NWA) approach¹⁷. Working with Nexamp, the project will eliminate the need for additional transmission lines or substation upgrades as more energy is delivered to the Coffeen Street substation because of installed solar projects. Called the Watertown Renewables project, it features more than 20,000 solar panels generating 8.4 MW of renewable energy and 10 Tesla Megapack systems providing 31 MWh of energy storage. Together, the solar and storage components of Watertown Renewables are engineered to give National Grid the ability to call on the system for up to 5.7 MW / 29 MWh up to 25 times per year either from the panels or the batteries.

The NYSERDA BESS regulation model law breaks battery solar energy systems into two categories based on the system's aggregate energy capacity: less than or equal to 600 kWh and greater than 600 kWh. According to this model, indoor BESS can also be categorized by the number of storage battery technologies used within the building (one or more than one). According to the distributed energy resources NYSERDA database, the smallest BESS is a residential system with a 1.0 kW storage capacity¹⁸. These small BESS can be the size of a circuit breaker box or even an office file cabinet. Just a few years ago, the largest battery storage energy system in New York was Key Capture Energy's KCE NY 1 facility in Saratoga County, which stores 20 MW of energy. The site includes a substation interconnection point, containers, and control house. An aerial view of KCE NY 1 can be seen on the company's website¹⁹. Two very large utility-scale projects have been proposed in Orange County and Erie County. These projects would both produce 300 MW of energy and would have around 150 MW of storage capacity.²⁰ These projects are much larger than existing storage facilities, and there will likely be more battery energy storage facilities of this size.

Communities where battery energy storage systems are being proposed may want to consider adding provisions to their zoning laws that address impacts. For more information on these tools, see the NYSERDA New York Battery Energy Storage System Guidebook²¹.

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The Pulaski small, 2 MW battery energy storage system, designed to sustain a 2,000-kW customer demand, as seen from the road. The top right portion of the image shows an aerial view of the storage system (source: Google Earth Pro). The bottom right portion of the image shows the storage system up close (source: NYS Tug Hill Commission).

Transmission

All solar projects are dependent on access to transmission lines and/or substations to get the generated electrons onto the electricity grid. The current transmission system in New York State has capacity limitations. Developers must apply to the utility (National Grid in the Tug Hill region) to assess the ability to tie into the grid, and to determine cost. As more solar projects come on-line, at some point transmission capacity will be maxed out until significant upgrades are made to transmission lines, or new lines are constructed. Transmission lines can be overhead or buried and can be a point of negotiation in developing solar projects. The New York Independent System Operator (NYISO) oversees the interconnection process, and all electricity generating projects must apply to NYISO for interconnection. A detailed overview of this process is outside the purview of this paper.

Tools for Solar Energy Siting and Development

Several resources have been developed to map energy projects in New York State. One of these is the Scenic Hudson Mapping Tool, which allows users to access self-guided training modules including an introduction to solar concepts, smart solar planning, and descriptions of available solar data layers²². The map uses up-to-date mapping technology, and includes:

- Solar opportunity layers, such as mined lands and large building footprints;
- Agricultural layers, such as agricultural districts, farmland soils (prime, prime if drained, statewide importance);
- Wetland and floodplain layers, such as state-regulated wetlands, national wetland inventory wetlands, FEMA 100-year and 500-year flood hazard zones;
- Biodiversity layers, such as forest cores and edges, important habitat areas;
- Protected area layers, such as national historic register properties; and
- Solar feasibility layers, such as transmission lines, NYS utility service territories, hosting capacities, and solar feasibility landforms.

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Datasets cover the Tug Hill region, as well as the Hudson Valley. NYSERDA has also created a mapping resource for New York, which includes distributed energy resource facilities such as solar energy systems and battery energy storage systems²³. Specific facilities can also be searched using their database tool.

Another important resource for municipalities is the hosting capacity map of the municipality. In the North Country, National Grid is the primary utility company, and they do have the ability to create hosting capacity maps. While National Grid has multiple different hosting capacity maps, utilizing the PV Hosting Capacity Map²⁴ can help municipalities as well as developers see where the existing infrastructure can accommodate new solar facilities. Developers still must meet the state and utility requirements, along with any federal requirements for adding solar facilities to the grid. The state and utility requirements can be found on the NYSERDA website.²⁵

Solar energy developers use several site criteria when choosing a project location. The first consideration is proximity to three-phase power transmission lines and substations. The closer a solar project is to three-phase power, the less effort a developer would need to connect into the electric grid network, ultimately lowering development costs. Substation locations are critical to project location as they serve the important function of transforming voltage. Proximity to substations is more of a priority for community-scale solar projects than for utility-scale projects. This is because the smaller revenue potential of community-scale-solar projects does not allow for high costs to build expensive, direct connections into the utility grid.

A second important consideration for solar developers is the characteristics of the land. It is easier to place arrays on large acreages of flat, cleared land that does not contain wetlands and is unlikely to be flooded. For this reason, developers often find farmland very attractive for project development. This creates tension between the agricultural industry and solar development, which will be further discussed in this paper.

Project Examples



Solar panels can be installed on dry soils and hillsides so as to not encroach or replace prime farmland.²⁶

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This project was located on a closed landfill site, a brownfield site, in New Jersey, which was already screened from public view and could not be utilized for many typical uses. This project generates about 25 MW of power and as of December of 2022 was the largest solar farm located on a closed landfill in the United States.²⁷



This project is located in South Carolina and shows a very good example of how to properly screen solar from the public viewshed.²⁸

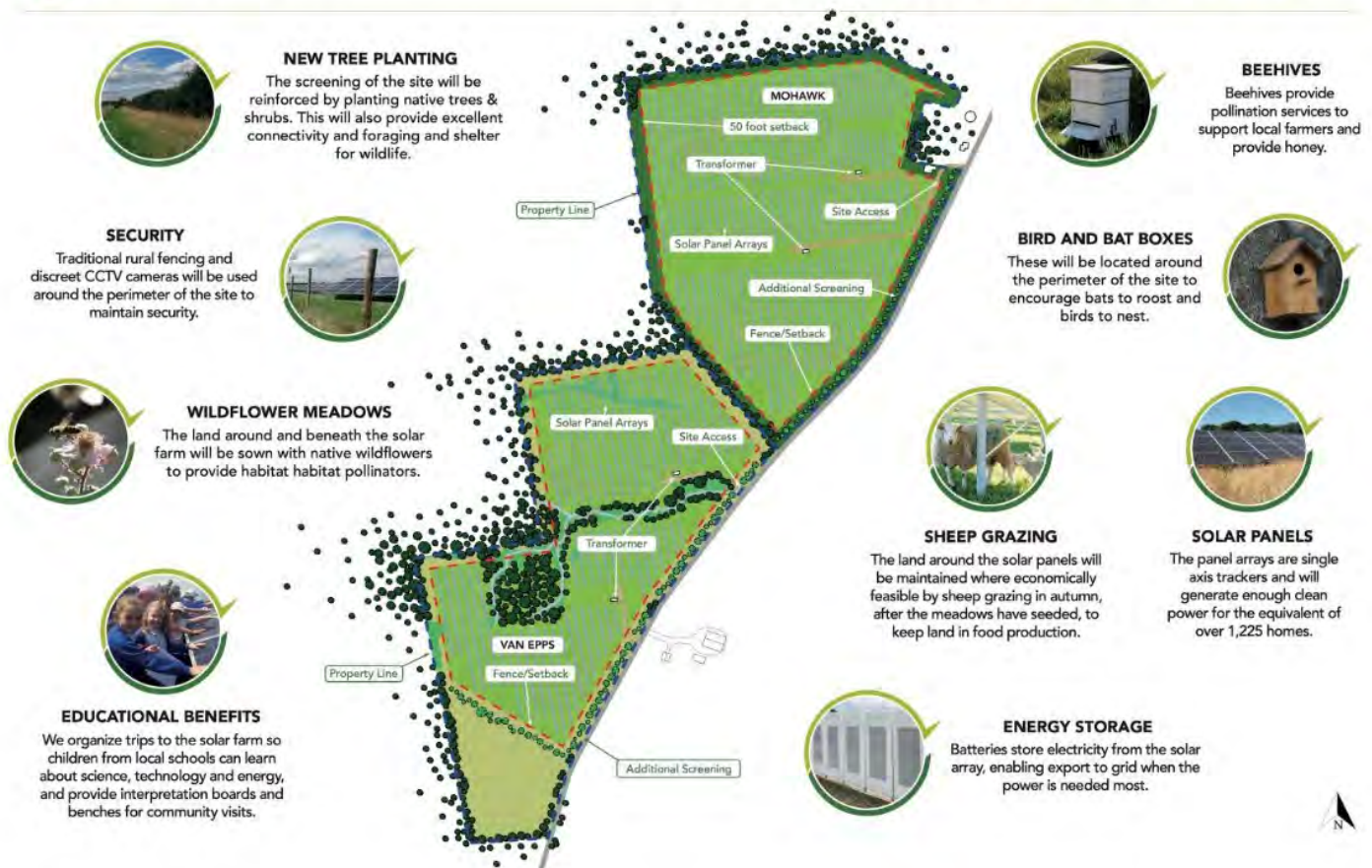
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This graphic shows how a solar array could be screened from the view of an existing residence. By having multiple layers of vegetation at differing heights, the project is successfully screened and a natural look achieved²⁹.



VAN EPPS & MOHAWK VIEW COMMUNITY SOLAR FARMS, TOWN OF GLEN, NY



Eden Renewables provides a very helpful graphic depicting different ways solar farms can incorporate environmental accommodations alongside the solar panels themselves.

Agricultural Considerations

Given developers' preferred site characteristics, specifically cleared, flat land near transmission lines, many projects are being proposed on farmland. This presents economic opportunities for landowners, including dairy farmers who may be facing volatile milk prices. However, it can also lead to quality farmland being taken out of production, impacting both the food system and local economies. As an alternative to developing on prime agricultural soils, some ideal locations with access to transmission lines are degraded sites, such as remediated brownfields, unused parking lots, parcels adjacent to transfer sites, landfills, prisons, and quarries. One local example of a brownfield being remediated is the Deferiet Paper Mill site in Jefferson County. The property is both a NYSERDA Build-Ready site, where solar panels are proposed to be installed and a Brownfield Opportunity Area undergoing a nomination study through the Department of State. Brownfield sites that are suitable for solar present great opportunities to use and repurpose existing industrial facilities.

As outlined above, there are different scales of large solar projects and NYS has specific definitions related to renewable energy incentives around "community" and "utility-scale" projects. The two different scales of projects each have their own benefits and challenges, including their impact on land use and agriculture. While each project will present a unique set of circumstances there are generalities worth considering in evaluating projects.

Community-Scale

- Most often associated with a single landowner
- More likely to be incorporated into a farming operation with minimal disruptions to the farm's existing business model
- Depending on planning and zoning requirements, these projects are often a less efficient use of land and can lead to a form of fragmentation or rural sprawl.

Utility Scale

- More often associated with multiple landowners
- Greater potential to be more disruptive to an existing farm business model
 - Loss of leased land
 - Maintaining adequate land base for existing herd
- When properly sited can be a more efficient use of land with less fragmentation

Uniform Tax Exemption Policies

Two methods that could channel solar development to more marginal farmland are zoning regulations and financial incentives, such as Industrial Development Agency (IDA) financial packages structured to incentivize the use of marginal agricultural land and the siting of projects in ways that lessen impacts.

As recently as 2022, the Lewis County IDA revised their Universal Tax Exemption Policy (UTEP) and expanded upon previous revisions which outline the clear criteria for which solar projects are eligible for real property tax

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abatements. The UTEP helps to guide how the Lewis County IDA issues Payment in Lieu of Taxes (PILOT) programs for new business development³⁰.

Some of the elements of the UTEP policy in regard to commercial solar development include:

- Incentivizing solar development on land that is not active farmland.
- In cases where solar is proposed on active farmland, the IDA incentivizes the development being located on land which is not “Prime” farmland, or “Prime – If drained” farmland.
- Consideration of the reduction of PILOT payments if a Community Economic Development Fund is started by a developer or if community benefit funds are spent by developers.
- Consideration in the reduction of PILOT payments if a developer works with neighboring property owners to minimize the visual impacts of solar development.

Each PILOT agreement will be considered on a case-by-case basis, with the proposal to start PILOT rates at \$7,500 per MW. The PILOT rate becomes more attractive for the developer as they pursue idle and/or lower quality soil types. This structure is an effort to more fairly compensate for the development of land with the highest value to the county’s agricultural economy and encourage development of more marginal acres.

The Jefferson County IDA updated their UTEP in July 2021.³¹ It includes items such as:

- No PILOT abatement schedule shall last more than 15 years.
- Agency PILOT Agreements for renewable energy projects shall provide a fixed dollar amount per megawatt AC faceplate rating of the project. The payment schedule will include a minimum two percent (2%) escalator on the prior year’s payment. Once so calculated, the agency reserves the right to alter the order in which the payments are made.
- PILOT agreements for renewable energy projects shall also require annual payment of the equivalent of full taxes on the land included within the project facility, which shall be based upon the assessed value as determined by the applicable assessor. Portions of existing tax parcels not included within a project ground lease will remain classified as fully taxable.
- Any participation by the agency in sponsoring a renewable energy project shall take into account whether a project sponsor enters into one or more host community agreement(s).

The Jefferson County IDA also has evaluation criteria to help determine the PILOT agreements which include considerations such as the nature of the project (whether it be manufacturing, commercial, or otherwise), the likelihood of the project being constructed in a timely manner, and the economic value of the project among other criteria. The UTEP outlines the agreement process as a series of possible or required steps the applicant must take. These steps are to be adhered to for the duration of the agreement.

Solar and Farmland Calculator

The screenshot below is from a calculator developed by the group collaborating on this paper, to show economic value created per acre for land used for dairy farming compared to land used for solar energy generation³². The green inputs on the calculator can be changed to evaluate different scenarios. This is intended to encourage discussion and not to discourage or encourage solar energy development. A few notes: landowners typically lease their land to farmers for between \$45 and \$150/acre. Solar developers are currently

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paying leases of between \$700 and \$1,200/acre. For farmers who are reliant on rented land, this can present a challenge, as the economics of agriculture do not allow for land rental rates that are competitive with solar leases. Loss of productive rentable land that is critical to their operation may decrease their ability to sustain their dairy businesses during times of tight margins (i.e. low milk prices). It also reduces the environmental sustainability of farms when they are forced to rent less productive land. Up to twice the amount of less productive land is required to produce outputs similar to more productive land. This creates a much larger environmental footprint for these farming operations.

Economic Activity from Dairy		Ag land owner options	
Input Values			
\$ in economy from acres supporting milk production per year		Revenue from land (Dairy) per year	
Production per cow	80 lbs milk/day	gross milk sales	\$ 5,612.00 per cow
Production per cow per year	24,400 lbs/year		\$ 2,806.00 per acre
100 weights of milk (cwt)	244 cwt/cow/year	net milk sales	\$488.00 per cow
Milk Price	\$ 23.00 per cwt		\$244.00 per acre
gross milk sales	\$ 5,612.00 per cow		
economic multiplier for gross milk sales	1.72		
acres needed per cow (& replacement)	2 acres		
\$ in economy (generated from milk sales)	\$ 9,652.64 per cow		
	\$ 4,826.32 per acre		
Cost of production (C.O.P.)		Revenue from land - Rental For Crop Production	
	\$21.00 per cwt	Average	
		Rental of tillable land	\$ 80.00 \$/acre
Economic Activity from Solar		Revenue from land - Lease for Solar	
Solar Lease for Landowner	\$1,000.00 \$/acre	Average	
Economic Multiplier of lease income	1.64 **	Solar Lease	\$1,000.00 \$/acre
Acres needed to Generate 1 MW	5 acres		
PILOT Payment	\$ 6,500.00 \$/MW		
	\$1,300.00 \$/acre		
SUM	\$2,940.00 \$/acre	Sell Land	\$ - \$/acre

A snapshot of the online tool, which shows economic value created per acre for land used for dairy farming compared to land used for solar energy generation.

These numbers demonstrate the attractiveness of a solar lease to many agricultural landowners and farmers. A recent article from the Rochester *Democrat and Chronicle* takes an in depth look into how farmers in Oneida County are facing challenging times, and how the choice between continuing to farm or allowing for solar development on their farmland is becoming even tougher³³.

To preserve farmland, a balanced approach may be to encourage or incentivize siting of solar panels on the least productive portion of the land, such as what Lewis County has done, so that farming activities can still occur, but the agricultural landowner benefits from the influx of capital from the solar lease³⁴. Using this approach, as well as utilizing zoning restrictions and requiring solar panel installation to follow best practices to limit long-term impacts to the soil, solar development may be a significant tool for maintaining farm ownership during periods of low dairy prices. A good resource for more details is available from Cornell Cooperative Extension of Jefferson

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County³⁵. The NYS Department of Agriculture and Markets also has guidance for construction mitigation on agricultural lands in relation to solar projects, such as requiring the solar developer (or its contractor) to hire or designate an environmental monitor—an individual with a confident understanding of normal agriculture practices—to oversee the construction, restoration, and follow-up monitoring in agricultural areas³⁶.

Agriculture has significant economic impacts in the four Tug Hill counties and beyond, as calculated in the 2017 United States Department of Agriculture National Agricultural Statistics Service Census of Agriculture and the Office of the NYS Comptroller^{37, 38}. Another financial consideration for farmers is that if land enrolled in the state agricultural assessment program is taken out of production, conversion penalties and interest may apply. For some projects, payment of those penalties has been incorporated into the lease payments from the developer to the landowner. More information about this is available in NYSEDA's Solar Guidebook³⁹. All landowners considering a solar lease with a development company are advised to consult with an attorney. Another good resource to look at is a guide to solar leasing published in 2019 and reviewed in June 2020 by Ohio State University's College of Food, Agricultural, and Environmental Sciences, the United States Department of Agriculture(USDA), and the National Agriculture Law Center⁴⁰.

Agrivoltaics

Agrivoltaics is defined as “the use of land for both agriculture and solar photovoltaic energy generation” by USDA.⁴¹ Other common terms include co-siting, dual use, agrisolar and solar grazing. This practice provides an opportunity to mitigate some of the impacts of removing land from agricultural production. There are still a number of questions around these options, however. Current commercial examples of dual-use in the Northeast include grazing sheep, harvesting hay, and creating pollinator habitat, though the latter is often considered in the category of ecological services but is sometimes considered agrivoltaics. One example of this is the Greens Corners Solar project which is proposed to allow for manure application and hay harvesting. Other ventures, including fruit, vegetable and row crop production are in more experimental stages or being implemented on smaller scales in other geographic regions.



Myron Zehr, Croghan, NY operates haying equipment under panels. Photo: Greg Hering, Clearpath Solar

Questions regarding agrivoltaics include;

- Evaluating tradeoffs in land use efficiency for both electric output of a solar array and productivity of the agricultural enterprise.
- The construction cost of the solar array associated with accommodating agricultural activities.

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- The scalability and marketability of the agricultural enterprises currently most suited to co-siting, i.e. sheep graziers serving as a vegetation management service with little market value to the sheep themselves.

Despite the questions around the future viability and scale of agrivoltaics, regulations for and decisions made during the siting process can significantly impact the future potential of a site to accommodate agrivoltaics. Given the yet to be determined best practices for agrivoltaics, communication between municipalities, landowners and developers early in the planning process is critical to assuring project designs that will offer the best opportunities for future dual use options.



*Solar installation in Seneca County which shows the above ground infrastructure, which could present problems for mowing or sheep grazing.
Photo: Joe Lawrence*

Forest Land Considerations

Much of the Tug Hill region and surrounding area is heavily forested, and anecdotally there are indications that some landowners may be clearing their forest to make way for solar projects. Forest cover makes it difficult to determine the topography of a site, secure representative soil samples, and survey the land for rocky outcroppings, vernal pools, etc. Preemptive clearing of forested lands for the purpose of making solar permitting for the site more attractive to developers is strongly not recommended. In the case that the site does not get permitted and developed as a solar facility, there is no remedy for the forest that has been cut down other than to replant trees or allow natural regeneration to take place, with a 40+ year timeline to return the forest to its previous condition.

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Forests provide significant carbon sequestration benefits, as well as air quality, water quality, stormwater management, and wildlife habitat benefits. Cutting down swaths of forest land to place solar panels should not be a common practice. While arguments are sometimes made that solar development is as important as retaining forest land in terms of reducing greenhouse gas emissions, the full range of benefits forested lands provide to communities should be factored into the equation. NYSERDA has a Smart Solar Siting Scorecard which aims to encourage developers to mitigate or minimize “project impacts to agricultural and environmental resources, and provide community benefits and collaborate with the community.”⁴² With each submission for a solar facility subsidy, the applicant must fill out a Solar Scorecard. These include a point system for things such as the type of soil the facility is located on, the road connection the facility will have, current and future farming accommodations, care for pollinator species in the area, and more. By using this system, developers will have to take into account additional factors to improve their score. This incentive of sorts is a good way to ensure proper planning is undertaken and solar facilities are located with minimal environmental impact.



A deer walks along a fence at a solar installation, showing how screening and security of solar facilities can affect local wildlife.

Common Municipal Planning Tools for Managing Solar Development

Under Town Law, Village Law, and Municipal Home Rule Law, municipalities are given the power to regulate land use, except in very specific situations (for example, the Article 10 process or the Section 94-c siting process). Many types of development projects, including solar energy systems, may be reviewed and their designs augmented. A variety of land use planning tools are available to help municipalities ensure that large solar development projects are well sited and constructed.

Moratoria

An option for communities that have received inquiries from solar developers looking to build projects within their borders that have no provisions for reviewing them is to adopt a moratorium by local law. A moratorium prohibits development for a set period (typically six months) which gives the municipality time to write and adopt provisions for siting and reviewing solar projects either in their zoning laws or in 'stand-alone' solar energy laws. For more information, the NYS Department of State has a useful publication about moratoria⁴³.

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Comprehensive Plans

Municipalities should amend their comprehensive plans to include language regarding goals for solar energy (and other alternative energy) development as well as defining ideal site locations. Plans should be used to communicate in plain language the rationale behind the standards in zoning and other land use laws. As mentioned previously, community surveys undertaken in conjunction with comprehensive planning processes should include questions designed to gauge public opinion on large solar project development.

Zoning Laws

Towns and villages should act to amend their zoning laws to include articles or sections on solar development. Provisions can also be adopted as ‘stand-alone’ local laws. Not addressing this leaves communities very vulnerable to having little to no mitigation power. Model language is very helpful and is available from several local and national sources. The Development Authority of the North Country (DANC), the Central NY Regional Planning Board (CNYRB), and NYS Energy Research & Development Authority (NYSERDA) have all developed model provisions that are geared toward New York State municipalities. The American Planning Association (APA) has developed a model law with standards that could apply nationwide. The Tug Hill Commission and the county planning departments are available to assist communities in writing or amending zoning laws. As always, municipalities should consult with their attorneys while drafting local laws and policies.

All local laws should properly define small and large-scale projects (as well as battery energy storage systems) and indicate which areas (zoning districts) of the community they are permitted in. Disturbed areas, such as brownfield sites and land bordering other industrial uses are good locations to steer these projects toward. Laws should also require that all large-scale solar energy projects undergo site plan review or special use permit review, either by planning boards or municipal boards. Site plan review alone may be appropriate for projects that are proposed in commercial or industrial areas. Special use permit review (authorized in NYS Town Law Section 274-B and Village Law Section 7-725-B) is more stringent in that it requires the municipality to hold a public hearing. It also gives the municipality the power to impose conditions on a project and to ultimately disapprove a project if it is found to be a bad fit for the neighborhood or general area where it is proposed.

Such laws should include:

- dimensional and design standards that allow for agrivoltaic use.
- limits on the percentage of land with soils categorized as mineral soil groups 1-4 (the best agricultural soils) that can be covered with solar arrays.
- maximum height and minimum setback standards to reduce visual impact or glare on neighboring properties, including a required minimum separation distance between solar arrays and neighboring residential structures. (Setback standards should be flexible, however, so as to not create unintended consequences, such as forcing projects onto better agricultural soils or productive woodlands or creating unusable parcel fragments.)
- a requirement that fencing should follow natural features, such as hedgerows and drainageways.
- screening requirements to lessen visual impacts of the project. Natural, native vegetation and berms are common screening methods to protect neighboring residences and views from public roads, public sites, or vistas. Common vegetation requirements include planting evergreen trees, such as western

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arborvitae, Norway spruce, pitch pine, and eastern red cedar, in staggered rows placed five to six feet apart. An extra row of deciduous trees is also occasionally required.

The final ORES regulations that apply to projects that fall under 94-c review require that a visual impact assessment to assess the significance of facility visibility—including an identification of visually sensitive resources, a viewshed mapping, confirmatory visual assessment fieldwork, visual simulations (e.g., photographic overlays)—must be incorporated into application procedure for those solar energy systems. Similar requirements can be used for smaller solar energy systems, especially those proposed in residential zoning districts.



This image depicts the location of a constructed 2.9 MW solar project in the town of Hounsfield⁴⁴. The project was sited in an 'Industrial' zoning district adjacent to a mining operation and a manufacturing operation.

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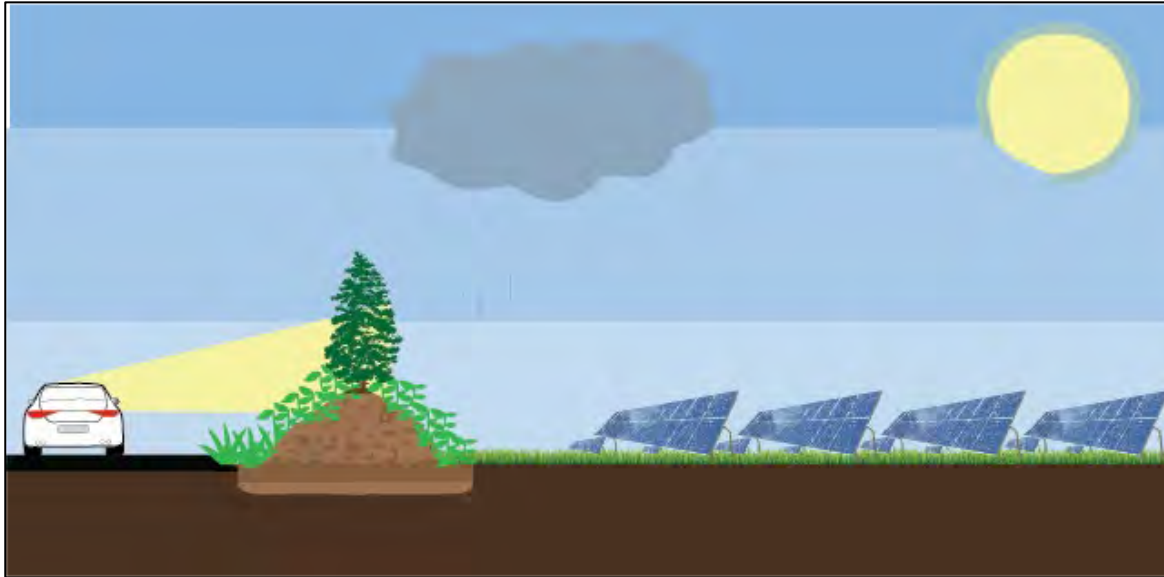
Left: Screening of the Burrville solar project in Jefferson County as seen from the road, shows how panels can be hidden from view.

Right: A view from the side shows how older existing growth was retained to provide screening and a row of younger trees were planted offset to further shield the view of the panels from the road.



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This image depicts a solar project that could have benefitted from better screening along the road frontage. The trees that were planted to screen the solar panels are too short to properly hide the panels from view on the roadway. Note that the power line poles were installed to transmit generated electricity to the grid.



This image depicts an earth berm screening the view of the solar panels from the perspective of the driver.

Project Review

Site Plan Review

Projects that are reviewed under a site plan review or special use permit process are required to submit site plans for review by the municipality. Boards are encouraged to seek the help of professional planners at the Tug Hill Commission, the county planning departments or DANC for help with this process. Assistance from a private consultant such as an engineer, landscape architect, or attorney can be sought in some cases, with fees being charged to the project applicant. Great care should be taken here however, as open-ended fees charged to applicants have been struck down in the courts. In other words, municipalities need to use rational fee structures, based on experiences in other communities, to be judged as fair to applicants.

SEQR

Large-scale solar energy systems reviewed under local laws are also typically subject to the State Environmental Quality Review Act, or SEQR⁴⁵. Projects that are greater than 10 acres in surface area are classified as Type I actions, meaning they require completion of a full environmental assessment form and coordinated review if more than one agency is involved in the permitting process. This threshold is reduced to 2.5 acres for projects that are proposed in county agricultural districts or contiguous to certain historic sites, public parkland or open space. Under SEQR, projects are given either a negative declaration or positive declaration of environmental impact. A positive declaration requires the applicant to complete an elaborate environmental impact statement (EIS) and allows the municipality to require set amounts of funding from the applicant to hire experts for project

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review. There may be a need for the lead agency to seek professional assistance to direct them through the EIS Process if a positive declaration is issued.

SEQR review is not required for solar projects that are 25 acres or less that are located on closed landfills, certain brownfield sites, certain inactive hazardous waste sites, certain public wastewater treatment facilities, parking lots, and currently disturbed sites zoned for industrial use. When conducting an environmental review of a solar project, it is recommended that wildlife considerations are taken into consideration. Migratory routes, breeding grounds, hunting areas, habitats, endangered species, and any other relevant considerations should be seriously considered. If the average life of these facilities is estimated to be 20 years or so, the impacts on the surrounding wildlife will be affected by that facility for that time period. Municipalities should make every effort to ensure that SEQR is completed with a complete scope of the project taken into consideration.

County Planning Board Review

Under New York State General Municipal Law Section 239-m, towns and villages must forward site plan review and special use permit applications to their county planning boards prior to taking final action if the proposed property is within 500 feet from any of the following geographical features: a municipal boundary, a county or state park or recreation area, a county or state road, a county right-of-way of a stream or drainage channel, a boundary of county or state owned land with a public building, or a boundary of a farm operation within an agricultural district.

Section 94-c

As discussed previously in this paper, Section 94-c of Executive Law applies to alternative energy projects that will generate 25 MW or more of electricity. The Section 94-c process takes project review largely out of local communities' hands. Review is undertaken by the Office of Renewable Energy Siting. For more details about the former Article 10 process and the new Section 94-c process, see the Tug Hill Commission's issue paper about wind farms, or Section 94-c of NYS Executive Law^{46, 47}.

	Local Municipal Laws (Zoning)	Section 94-C of Executive Law (Office of Renewable Energy Siting)
Project Production Capacity	<ul style="list-style-type: none">Any project that produces less than 25 MW	<ul style="list-style-type: none">Any project that produces over 25 MW must go through the Office of Renewable Energy Siting (ORES).Projects that are between 20-25 MW have the option of going through local review or ORES
Agency responsible for reviewing the project	<ul style="list-style-type: none">Local Planning or Zoning boards, Town Board approval	<ul style="list-style-type: none">Office of Renewable Energy SitingNYS Department of Environmental Conservation
Application process	<ul style="list-style-type: none">Municipal Zoning rules such as Site Plan Review or Special Use Permit	<ul style="list-style-type: none">ORES Regulations

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Environmental Review	<ul style="list-style-type: none"> Conducted through SEQR (State Environmental Quality Review) 	<ul style="list-style-type: none"> ORES is designated to supersede SEQR ORES and NYSDEC work to identify the environmental impacts of the proposed site and
Public Hearings	<ul style="list-style-type: none"> Citizens are able to provide a public statement to be entered into the record 	<ul style="list-style-type: none"> Public statement hearings and comment period Adjudicatory hearings can be set up if serious and significant concerns are raised
Parties involved with the development of the application and conditions of approval	<ul style="list-style-type: none"> Municipal boards and involved agencies 	<ul style="list-style-type: none"> ORES and other state agencies. Can reach out to local boards for consultation requests
Compliance with local laws	<ul style="list-style-type: none"> Required to comply with local regulations 	<ul style="list-style-type: none"> Municipalities can send a letter to state whether or not the project is in compliance with local laws ORES is able to disregard local laws that are “unreasonably burdensome” to achieving the goals of the CLCPA If ORES does disregard local laws, the municipality can demonstrate that by approving the project, the municipality would be adversely impacted by the approval of the facility

This chart (based on materials developed by Knauf Shaw, LLP) gives a clear comparison of how to handle renewable energy projects. It is designed to help local officials and the public understand the difference between how a project equal to or over 25MW is reviewed compared to a project under 25 MW.⁴⁸

Agriculture & Markets Review

New York State Department of Agriculture and Markets’ (NYSDAM) goal concerning solar development pressure is to conserve and protect the available highly productive agricultural soil resources within the state for the present and future production of food and fiber. With regards to involvement with large solar energy systems, NYSDAM will often be consulted in matters concerning farmland preservation⁴⁹. Projects that will receive a subsidy from a New York State funding agency that are in an agricultural district trigger (via a Notice of Intent) this consultation from NYSDAM to determine if the proposed project would have an adverse effect on the viability of present and future farming endeavors. Unfavorable reviews have resulted in efforts to evaluate the values of the loss of agricultural productivity and to develop mitigation payments with local land trusts, such as creation of conservation easements that encourage the continuation of agricultural practices in the local community. An example of Notice of Intent correspondence can be found in the appendices, and more information about the details of the Notice of Intent process can be found online⁵⁰.

NYSDAM has written mitigation guidelines that were developed in conjunction with NYSERDA⁵¹ Recommended mitigation practices include certain construction requirements, post-construction restoration, decommissioning, and environmental monitoring throughout the planning, construction, and post-construction processes.

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NYSDAM recommends that large solar energy systems be sited in areas that are unacceptable for farmland conversion and that communities discuss what limits they want to place on non-agricultural development on agricultural land. Solar developers that identify agricultural lands, priority agricultural soils, and thresholds of acceptable impacts using methods, actions, and modifications to preserve farmland would be seen favorably in a NYSDAM review. It is important to note that NYSDAM strives to limit the conversion of the best soil types to no more than 10 percent⁵². It is recommended that local officials review NYSDAM public testimony about the impacts of solar energy systems on farmland before making a final decision.

Financial Impact on Municipalities

Taxation and PILOTs

Real Property Tax Law Section 487 created an exemption for certain alternative energy systems including solar. Under the terms of the exemption, a qualifying project would be fully exempt from general municipal and school taxes for a period of 15 years for the added value of the system. The legislation also gives the option to the taxing jurisdictions to require a project to enter into a payment in lieu of tax agreement (PILOT). Currently most PILOTs are based on the project's rated capacity or dollars per MW. Any PILOT entered into may be up to 15 years in duration and may not exceed what would have been due and payable if the project was normally assessed. Under this section of law, unless the negotiations are coordinated, it would be the responsibility of each taxing jurisdiction to separately negotiate the terms of the PILOT.

The legislation also allows for any taxing jurisdiction (school, county, city, town or village), by resolution, to opt out of the provisions and not grant any exemption or PILOT regardless of project-scale. If a jurisdiction has opted out of the exemption, the project would be fully taxable in the absence of a PILOT from another authorized agency. As of the writing of this paper, Tug Hill municipalities that have opted out of Real Property Tax Law §487 are the towns of Boonville, Camden, Champion, Constantia, Denmark, Floyd, Lee, Leyden, Rodman, Steuben, Trenton, Watertown, West Monroe, and Worth. The only village to have opted out of the taxation exemption for solar energy projects is Copenhagen. A list of those taxing jurisdictions that have opted out is available for each county on the NYS Department of Tax and Finance website⁵³.

County IDAs are authorized in Article 18-A of General Municipal Law to enter into PILOT agreements. Due to the number of taxing jurisdictions that have opted out of RPTL Section 487, IDAs have become the preferred route for the larger projects to seek a PILOT. Each IDA is required by law to establish a UTEP that defines what benefits they may offer. While 15 years is typical for a PILOT agreement, IDA's have the option to approve a longer agreement. This may be preferred by renewable energy projects as it allows the length of the PILOT agreement and the lifespan of the project be aligned. While there may be similarities between IDA's UTEPs, developers should review each agency's policy to fully understand the procedures for seeking a PILOT. Taxing jurisdictions may have also adopted their own policy for alternative energy projects. A list of UTEPs and other known policies are listed at the end of this paper.

Real Property Tax Law 575-b

Part N of Chapter 59 of the Laws of 2023 encapsulated in state law a previous administrative rule that requires local assessors to use an appraisal methodology calculator provided by the NYS Department of Taxation and Finance. Real Property Tax Law 575-b, requires assessors to use the discounted cash flow approach to value solar and wind energy systems, rather than the income or sales approach. Use is mandatory and is expected to

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negatively impact local municipal revenue from established projects as the value of solar and wind energy systems will generally be discounted using the state model. If the required property tax payments for solar and wind projects are lower than what these projects are currently paying through their PILOT agreements, project owners will likely opt out of the PILOT agreements. Subsequently, expected PILOT payments already factored into budgets and long term financial planning would decrease, with a possible corresponding increase in taxes or loss of services⁵⁴.

Decommissioning

Municipalities need to plan for equipment removal and site restoration when solar facilities can no longer serve their intended function. This is known as the decommissioning process. During the application process for an Section 94-c solar project, a decommissioning agreement must be created and approved. A decommissioning agreement can also be stipulated in site plan or special use permit provisions for projects that are less than 25 MW. To ensure that projects less than 25 MW have a decommissioning plan, municipalities should include language requiring it in their zoning or stand-alone solar laws.

A decommissioning agreement should include at least the following: a plan for the decompaction of 18 to 24 inches of soil, rocks, and debris, ideally up to 4 feet; a plan for the removal of unused transmission lines; a plan for soil restoration and monitoring; a plan for regrading, reseeding, and revegetating disturbed soil; and a process for collecting decommissioning funds. Other important considerations include safety and removal of hazardous conditions and facilities, environmental impacts, aesthetics, salvaging and recycling of materials, potential future uses for the site, and what the expected useful life of the facility will be.

A financial surety, such as a performance bond, escrow account, or irrevocable line of credit is often required of developers to guarantee decommissioning funds will be available even if the ownership of the project changes over the life of the system, or if the owner goes bankrupt. Potential costs might include the removal of the solar panels, removal of array foundations, removal of collection lines and junction boxes, substation removal, reclamation of access roads, and soil restoration measures. In some cases, a project's salvage value will be subtracted from the total decommissioning costs to provide the total net decommissioning cost. Many communities require the amount of the bond or security to be 110 % of the cost of removal of the large-scale solar energy system and restoration of the property. The amount of the bond or security has also been required to be updated by a qualified independent engineer licensed to practice in the State of New York to reflect inflation and any other changes after one year of project operation, and every fifth year thereafter.

Impact on Property Values

Only now are studies emerging that have utilized data to assess the effect of solar arrays on property value. A recent study from the University of Rhode Island looked at hundreds of thousands of real estate transactions, and using a regression model analysis, they were able to test to see any effects. The study provides data which found no negative impact to residential home values near solar arrays in rural areas: "these results suggest that [the impacts on home sales in the Test Area] in rural areas is effectively zero (a statistically insignificant 0.1%), and that the negative externalities of solar arrays are only occurring in non-rural areas. Further, the study tested to determine if the size of the solar installation impacted nearby property values and found no evidence of differential property values impacts by the solar installation's size".⁵⁵ With a general consensus from other studies that support these findings, the impact to rural property values seems to be insignificant. However, as

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you move toward more developed areas such as suburban neighborhoods or urban environments, there is more likely to be an impact on the property value. Screening and setbacks can be very useful to protect viewsheds and shield utilities and infrastructure from the road. These may be tools to help protect property values.

Final Thoughts

Solar energy development is rapidly evolving as financial incentives, technology, and best management practices change. Communities should consider carefully examining their zoning or standalone solar laws to confirm that they are up to date, as they will guide development on smaller projects and will be considered in state siting processes. Towns and villages should take a proactive approach in identifying sites that would be most appropriate for large-scale solar development. Brownfields, landfills, and sites with limited development potential should be prioritized and incentivized. Agricultural soils are a high priority resource to protect, and efforts should be made to minimize impacts to them. Screening and setback requirements are also critical considerations as visual impacts are one of the largest concerns. Environmental and wildlife concerns are also an important consideration. Ensuring wildlife habitats, movement, migratory patterns, breeding grounds, and other important factors are not adversely impacted by solar siting and development is key to having as little impact on the environment as possible from these facilities. Communities are to be commended for their diligent attention to this land use issue, as large-scale solar projects have both benefits and drawbacks.

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Appendix A: Useful Websites

American Farmland Trust

- Smart Solar Siting Principles and Examples of Land Use Laws that Support Renewable Energy While Protecting Farmland: www.livingstoncounty.us/DocumentCenter/View/8560/American-Farmland-Trust-Smart-Solar-Solar_Siting-Principles-and-Examples-of-Local-Solar-Laws-that-Protect-Farmland-with-links

Department of Energy's Solar Rooftop Potential: <https://www.energy.gov/eere/solar/solar-rooftop-potential>

National Grid Hosting Capacity Map:

systemdataportal.nationalgrid.com/NY/?_gl=1*1jfk6dm*_ga*MTk0MDQ2MzMzNS4xNjgyMzU4Mjk0*_ga_FH50R0D4B4*MTY4MjYwODI1Ny4yLjAuMTY4MjYwODI1Ny42MC4wLjA

National Renewable Energy Laboratory Solar Data Viewer: maps.nrel.gov/nsrdb-viewer/?aL=chXUF-%255Bv%255D%3Dt&bL=clight&cE=0&IR=0&mC=43.5107129908437%2C-73.91876220703125&zL=8

NYS Energy Research and Development Authority

- Solar Electric Programs Reported by NYSERDA Beginning 2000: data.ny.gov/widgets/3x8r-34rs
- New York Solar Guidebook: <https://www.nyserda.ny.gov/All-Programs/Programs/NY-Sun/Communities-and-Local-Governments/Solar-Guidebook-for-Local-Governments>
- New York Battery Energy Storage System Guidebook: <https://www.nyserda.ny.gov/All-Programs/Clean-Energy-Siting-Resources/Battery-Energy-Storage-Guidebook>
- NY-Sun PV Trainers Network, Zoning for Solar Energy Resource Guide: <https://www.nyserda.ny.gov/All-Programs/Become-a-NYSERDA-Qualified-Contractor/Solar-Installers> Webinar: <https://training.ny-sun.ny.gov/zoning-for-solar-webinar>
- Solicitations for Large-Scale Renewables: www.nyserda.ny.gov/All-Programs/Programs/Clean-Energy-Standard/Renewable-Generators-and-Developers/RES-Tier-One-Eligibility/Solicitations-for-Long-term-Contracts
- Special Use Permits and Site Plan for Reviewing Large-Scale Solar: www.nyserda.ny.gov/-/media/EF21A8260F184DDDBAD3F586294736B5.ashx

NYS Department of Environmental Conservation

- SEQR Handbook: https://www.dec.ny.gov/docs/permits_ej_operations_pdf/seqrhandbook.pdf
- Environmental Notice Bulletin: www.dec.ny.gov/enb/enb.html

NYS Department of Agriculture and Markets

- [Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands: Agricultural Mitigation for Windpower Projects \(ny.gov\)](#)
- Department's Division of Land and Water: <https://agriculture.ny.gov/division-land-and-water-resources>
- Public testimony on Application of Mohawk Solar LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 of the Public Service Law for Construction of a Solar Electric

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Generating Facility in the Towns of Canajoharie and Minden, Montgomery County: [NYS DPS-DMM: Matter Master](#)

NYS Department of Public Service, Public Service Commission

- Siting Board Home: www3.dps.ny.gov/W/PSCWeb.nsf/All/1392EC6DD904BBC285257F4E005BE810?OpenDocument

The Nature Conservancy

- Accelerating Large-Scale Wind and Solar Energy in New York: www.nature.org/content/dam/tnc/nature/en/documents/accelerating-large-scale-wind-and-solar-energy-in-new-york.pdf

Scenic Hudson's Clean Energy, Green Communities: A Guide to Siting Renewable Energy in the Hudson Valley: www.scenichudson.org/wp-content/uploads/legacy/renewables-siting-guide_web.pdf

Links to Model Local Laws

NYSDERDA Model Solar Energy Local Law and Battery Energy Storage System Model Law:

<https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/NY-Sun/Model-Solar-Energy-Local-Law.docx> and <https://www.nyserda.ny.gov/All-Programs/Clean-Energy-Siting-Resources/Solar-Guidebook>

Fort Drum Compatibility: www.fortdrumcompatibility.org/media/Documents/Solar%20Law%20Model.docx

American Planning Association: <https://www.planning.org/publications/report/9117592/>

Central New York Regional Planning & Development Board: www.cnyenergychallenge.org/zoning-building-code-and-permitting

Links to UTEP Policies

Jefferson County: <https://www.jcida.com/wp-content/uploads/2021/07/JCIDA-UTEP-adopted-070921.pdf>

Lewis County:

https://naturallylewis.com/images/LCIDA_Policies_2020/UniformTaxExemptionPolicy_LCIDA_02.03.2022.pdf

Lewis County Commercial Solar Policy: naturallylewis.com/images/LCIDA_Solar_Policy_Final_2.7.2019.pdf

Oneida County: www.cmvh.org/documents/89.pdf

Oswego County: www.oswegocountyida.org/pdfs/UTEP%20Countywide.pdf

Appendix B: Solar energy and battery energy storage systems regulations based on NYSERDA models

Note: It is not recommended for municipalities to use the Model Law ‘as is’, it was created as a resource for advising local governments when adopting solar energy local laws.

1. Authority

This Solar Energy Local Law is adopted pursuant to [Select one: sections 261-263 of the Town Law / sections 7-700 through 7-704 of the Village Law / sections 19 and 20 of the City Law and section 20 of the Municipal Home Rule Law] of the State of New York, which authorize the [Village/Town/City] to adopt zoning provisions that advance and protect the health, safety and welfare of the community, and, in accordance with the [Village/Town/City] law of New York State, “to make provision for, so far as conditions may permit, the accommodation of solar energy systems and equipment and access to sunlight necessary therefor.”

AND/OR

This Battery Energy Storage System Law is adopted pursuant to Article IX of the New York State Constitution, §2(c)(6) and (10), New York Statute of Local Governments, § 10 (1) and (7); [Select one: sections 261-263 of the Town Law / sections 7-700 through 7-704 of the Village Law / sections 19 and 20 of the City Law and section 10 of the Municipal Home Rule Law] of the State of New York, which authorize the [Village/Town/City] to adopt zoning provisions that advance and protect the health, safety and welfare of the community.

2. Statement of Purpose

- A. This Solar Energy Local Law is adopted to advance and protect the public health, safety, and welfare of [Village/Town/City] by creating regulations for the installation and use of solar energy generating systems and equipment, with the following objectives:
- 1) To take advantage of a safe, abundant, renewable and non-polluting energy resource;
 - 2) To decrease the cost of electricity to the owners of residential and commercial properties, including single-family houses;
 - 3) To increase employment and business development in the [Village/Town/City], to the extent reasonably practical, by furthering the installation of Solar Energy Systems;
 - 4) To mitigate the impacts of Solar Energy Systems on environmental resources such as important agricultural lands, forests, wildlife and other protected resources, and;
 - 5) To create synergy between solar and [other stated goals of the community pursuant to its Comprehensive Plan], [such as urban/downtown revitalization, vacant land management, creating a walkable, healthy community, etc.].

AND/OR

- B. This Battery Energy Storage System Law is adopted to advance and protect the public health, safety, welfare, and quality of life of [Village/Town/City] by creating regulations for the installation and use of battery energy storage systems, with the following objectives:
- 1) To provide a regulatory scheme for the designation of properties suitable for the location, construction and operation of battery energy storage systems;

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- 2) To ensure compatible land uses in the vicinity of the areas affected by battery energy storage systems;
- 3) To mitigate the impacts of battery energy storage systems on environmental resources such as important agricultural lands, forests, wildlife and other protected resources; and
- 4) To create synergy between battery energy storage system development and [other stated goals of the community pursuant to its Comprehensive Plan].

3. Definitions

BUILDING-INTEGRATED SOLAR ENERGY SYSTEM: A combination of Solar Panels and Solar Energy Equipment integrated into any building envelope system such as vertical facades, semitransparent skylight systems, roofing materials, or shading over windows, which produce electricity for onsite consumption.

FARMLAND OF STATEWIDE IMPORTANCE: Land, designated as “Farmland of Statewide Importance” in the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS)’s Soil Survey Geographic (SSURGO) Database on Web Soil Survey, that is of state wide importance for the production of food, feed, fiber, forage, and oilseed crops as determined by the appropriate state agency or agencies. Farmland of Statewide Importance may include tracts of land that have been designated for agriculture by state law.

GLARE: The effect by reflections of light with intensity sufficient as determined in a commercially reasonable manner to cause annoyance, discomfort, or loss in visual performance and visibility in any material respects.

GROUND-MOUNTED SOLAR ENERGY SYSTEM: A Solar Energy System that is anchored to the ground via a pole or other mounting system, detached from any other structure, that generates electricity for onsite or offsite consumption.

NATIVE PERENNIAL VEGETATION: native wildflowers, forbs, and grasses that serve as habitat, forage, and migratory way stations for pollinators and shall not include any prohibited or regulated invasive species as determined by the New York State Department of Environmental Conservation.

POLLINATOR: bees, birds, bats, and other insects or wildlife that pollinate flowering plants, and includes both wild and managed insects.

PRIME FARMLAND: Land, designated as “Prime Farmland” in the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS)’s Soil Survey Geographic (SSURGO) Database on Web Soil Survey, that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these land uses.

ROOF-MOUNTED SOLAR ENERGY SYSTEM: A Solar Energy System located on the roof of any legally permitted building or structure that produces electricity for onsite or offsite consumption.

SOLAR ACCESS: Space open to the sun and clear of overhangs or shade so as to permit the use of active and/or passive Solar Energy Systems on individual properties.

SOLAR ENERGY EQUIPMENT: Electrical material, hardware, inverters, conduit, storage devices, or other electrical and photovoltaic equipment associated with the production of electricity.

SOLAR ENERGY SYSTEM: The components and subsystems required to convert solar energy into electric energy suitable for use. The term includes, but is not limited to, Solar Panels and Solar Energy Equipment. The area of a Solar Energy System includes all the land inside the perimeter of the Solar Energy System, which extends to any

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interconnection equipment. A Solar Energy System is classified as a Tier 1, Tier 2, or Tier 3 Solar Energy System as follows.

- A. Tier 1 Solar Energy Systems include the following:
 - a. Roof-Mounted Solar Energy Systems
 - b. Building-Integrated Solar Energy Systems
- B. Tier 2 Solar Energy Systems include Ground-Mounted Solar Energy Systems with system capacity up to [25] kW AC and that generate no more than [110] % of the electricity consumed on the site over the previous [12] months.

OR

Tier 2 Solar Energy Systems include Ground-Mounted Solar Energy Systems with a total surface area of all solar panels on the lot of up to [4,000] square feet and that generate up to [110] % of the electricity consumed on the site over the previous [12] months.

- C. Tier 3 Solar Energy Systems are systems that are not included in the list for Tier 1 and Tier 2 Solar Energy Systems.

SOLAR PANEL: A photovoltaic device capable of collecting and converting solar energy into electricity.

STORAGE BATTERY: A device that stores energy and makes it available in an electrical form.

AND/OR

ANSI: American National Standards Institute

BATTERY(IES): A single cell or a group of cells connected together electrically in series, in parallel, or a combination of both, which can charge, discharge, and store energy electrochemically. For the purposes of this law, batteries utilized in consumer products are excluded from these requirements.

BATTERY ENERGY STORAGE MANAGEMENT SYSTEM: An electronic system that protects energy storage systems from operating outside their safe operating parameters and disconnects electrical power to the energy storage system or places it in a safe condition if potentially hazardous temperatures or other conditions are detected.

BATTERY ENERGY STORAGE SYSTEM: One or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time, not to include a stand-alone 12-volt car battery or an electric motor vehicle. A battery energy storage system is classified as a Tier 1 or Tier 2 Battery Energy Storage System as follows:

- A. Tier 1 Battery Energy Storage Systems have an aggregate energy capacity less than or equal to 600kWh and, if in a room or enclosed area, consist of only a single energy storage system technology.
- B. Tier 2 Battery Energy Storage Systems have an aggregate energy capacity greater than 600kWh or are comprised of more than one storage battery technology in a room or enclosed area.

CELL: The basic electrochemical unit, characterized by an anode and a cathode, used to receive, store, and deliver electrical energy.

COMMISSIONING: A systematic process that provides documented confirmation that a battery energy storage system functions according to the intended design criteria and complies with applicable code requirements.

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DEDICATED-USE BUILDING: A building that is built for the primary intention of housing battery energy storage system equipment, is classified as Group F-1 occupancy as defined in the International Building Code, and complies with the following:

- 1) The building's only use is battery energy storage, energy generation, and other electrical grid-related operations.
- 2) No other occupancy types are permitted in the building.
- 3) Occupants in the rooms and areas containing battery energy storage systems are limited to personnel that operate, maintain, service, test, and repair the battery energy storage system and other energy systems.
- 4) Administrative and support personnel are permitted in areas within the buildings that do not contain battery energy storage system, provided the following:
 - a. The areas do not occupy more than 10 percent of the building area of the story in which they are located.
 - b. A means of egress is provided from the administrative and support use areas to the public way that does not require occupants to traverse through areas containing battery energy storage systems or other energy system equipment.

ENERGY CODE: The New York State Energy Conservation Construction Code adopted pursuant to Article 11 of the Energy Law, as currently in effect and as hereafter amended from time to time.

FIRE CODE: The fire code section of the New York State Uniform Fire Prevention and Building Code adopted pursuant to Article 18 of the Executive Law, as currently in effect and as hereafter amended from time to time.

NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL): A U.S. Department of Labor designation recognizing a private sector organization to perform certification for certain products to ensure that they meet the requirements of both the construction and general industry OSHA electrical standards.

NEC: National Electric Code.

NFPA: National Fire Protection Association.

NON-DEDICATED-USE BUILDING: All buildings that contain a battery energy storage system and do not comply with the dedicated-use building requirements.

NON-PARTICIPATING PROPERTY: Any property that is not a participating property.

NON-PARTICIPATING RESIDENCE: Any residence located on non-participating property.

OCCUPIED COMMUNITY BUILDING: Any building in Occupancy Group A, B, E, I, R, as defined in the International Building Code, including but not limited to schools, colleges, daycare facilities, hospitals, correctional facilities, public libraries, theaters, stadiums, apartments, hotels, and houses of worship.

PARTICIPATING PROPERTY: A battery energy storage system host property or any real property that is the subject of an agreement that provides for the payment of monetary compensation to the landowner from the battery energy storage system owner (or affiliate) regardless of whether any part of a battery energy storage system is constructed on the property.

UNIFORM CODE: the New York State Uniform Fire Prevention and Building Code adopted pursuant to Article 18 of the Executive Law, as currently in effect and as hereafter amended from time to time.

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4. Applicability

- A. The requirements of this Local Law shall apply to all Solar Energy Systems permitted, installed, or modified in [Village/ Town/City] after the effective date of this Local Law, excluding general maintenance and repair.
- B. Solar Energy Systems constructed or installed prior to the effective date of this Local Law shall not be required to meet the requirements of this Local Law.
- C. Modifications to an existing Solar Energy System that increase the Solar Energy System area by more than [5] % of the original area of the Solar Energy System (exclusive of moving any fencing) shall be subject to this Local Law.
- D. All Solar Energy Systems shall be designed, erected, and installed in accordance with all applicable codes, regulations, and industry standards as referenced in the NYS Uniform Fire Prevention and Building Code ("Building Code"), the NYS Energy Conservation Code ("Energy Code"), and the [Village/Town/City] Code.

AND/OR

- A. The requirements of this Local Law shall apply to all battery energy storage systems permitted, installed, or modified in [Village/Town/City] after the effective date of this Local Law, excluding general maintenance and repair.
- B. Battery energy storage systems constructed or installed prior to the effective date of this Local Law shall not be required to meet the requirements of this Local Law.
- C. Modifications to, retrofits or replacements of an existing battery energy storage system that increase the total battery energy storage system designed discharge duration or power rating shall be subject to this Local Law.

5. General Requirements

- A. A Building permit shall be required for installation of all Solar Energy Systems
- B. Local land use boards are encouraged to condition their approval of proposed developments on sites adjacent to Solar Energy Systems so as to protect their access to sufficient sunlight to remain economically feasible over time.
- C. Issuance of permits and approvals by the [Reviewing Board] shall include review pursuant to the State Environmental Quality Review Act [ECL Article 8 and its implementing regulations at 6 NYCRR Part 617 ("SEQRA")].

AND/OR

- D. A building permit and an electrical permit shall be required for installation of all battery energy storage systems.
- E. All battery energy storage systems, all Dedicated Use Buildings, and all other buildings or structures that (1) contain or are otherwise associated with a battery energy storage system and (2) subject to the Uniform Code and/or the Energy Code shall be designed, erected, and installed in accordance with all applicable provisions of the Uniform Code, all applicable provisions of the Energy Code, and all applicable provisions of the codes, regulations, and industry standards as referenced in the Uniform Code, the Energy Code, and the [Village/Town/City] Code.

6. Permitting Requirements for Tier 1 Solar Energy Systems

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All Tier 1 Solar Energy Systems shall be permitted in all zoning districts and shall be exempt from site plan review under the local zoning code or other land use regulation, subject to the following conditions for each type of Solar Energy Systems:

A. Roof-Mounted Solar Energy Systems

- 1) Roof-Mounted Solar Energy Systems shall incorporate, when feasible, the following design requirements:
 - a. Solar Panels on pitched roofs shall be mounted with a maximum distance of [8] inches between the roof surface the highest edge of the system.
 - b. Solar Panels on pitched roofs shall be installed parallel to the roof surface on which they are mounted or attached.
 - c. Solar Panels on pitched roofs shall not extend higher than the highest point of the roof surface on which they are mounted or attached.
 - d. Solar Panels on flat roofs shall not extend above the top of the surrounding parapet, or more than [24] inches above the flat surface of the roof, whichever is higher.
- 2) Glare: All Solar Panels shall have anti-reflective coating(s).
- 3) Height: All Roof-Mounted Solar Energy Systems shall comply with the height limitations measured from the highest natural grade below each solar panel in the following table.

Zoning District	Tier 1 Roof-Mounted	Tier 2	Tier 3
[Residential Low Density]	2' above roof	10'	15'
[Residential High Density]	2' above roof	10'	Not Allowed
[Commercial / Business]	4' above roof	15'	20'
[Light Industrial]	4' above roof	15'	20'
[Heavy Industrial]	4' above roof	15'	20'
[Agricultural / Residential]	2' above roof	15'	20'

OR

All Roof-Mounted Solar Energy Systems shall be subject to the maximum height regulations specified for principal and accessory buildings within the underlying zoning district.

- B. Building-Integrated Solar Energy Systems shall be shown on the plans submitted for the building permit application for the building containing the system.

7. Permitting Requirements for Tier 2 Solar Energy Systems

All Tier 2 Solar Energy Systems shall be permitted in all zoning districts as accessory structures and shall be exempt from site

plan review under the local zoning code or other land use regulations, subject to the following conditions:

- A. Glare: All Solar Panels shall have anti-reflective coating(s).
- B. Setbacks: Tier 2 Solar Energy Systems shall be subject to the setback regulations specified for the accessory structures within the underlying zoning district. All Ground- Mounted Solar Energy Systems shall only be installed in the side or rear yards in residential districts.
- C. Height: Tier 2 Solar Energy Systems shall be subject to the height limitations specified for accessory structures within the underlying zoning district.

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OR

Tier 2 Solar Energy Systems shall comply with the height limitations measured from the highest natural grade below each solar panel in the following table.

Zoning District	Tier 1 Roof-Mounted	Tier 2	Tier 3
[Residential Low Density]	2' above roof	10'	15'
[Residential High Density]	2' above roof	10'	Not Allowed
[Commercial / Business]	4' above roof	15'	20'
[Light Industrial]	4' above roof	15'	20'
[Heavy Industrial]	4' above roof	15'	20'
[Agricultural / Residential]	2' above roof	15'	20'

D. Screening and Visibility.

- 1) All Tier 2 Solar Energy Systems shall have views minimized from adjacent properties to the extent reasonably practicable.
- 2) Solar Energy Equipment shall be located in a manner to reasonably avoid and/or minimize blockage of views from surrounding properties and shading of property to the north, while still providing adequate solar access.

E. Lot Size: Tier 2 Solar Energy Systems shall comply with the existing lot size requirement specified for accessory structures within the underlying zoning district.

8. Permitting requirements for Tier 3 Solar Energy Systems

All Tier 3 Solar Energy Systems are permitted through the issuance of a [special use permit] within the [XXXXXXXXXXXXX, XXXXXXXXXXX, XXXXXXXXXXX] zoning districts, and subject to site plan application requirements set forth in this Section.

A. Applications for the installation of Tier 3 Solar Energy System shall be:

- 1) reviewed by the [Code Enforcement/Zoning Enforcement Officer or Reviewing Board] for completeness. Applicants shall be advised within [10] business days of the completeness of their application or any deficiencies that must be addressed prior to substantive review.
- 2) subject to a public hearing to hear all comments for and against the application. The [Reviewing Board] of the [Village/ Town/City] shall have a notice printed in a newspaper of general circulation in the [Village/Town/City] at least [5] days in advance of such hearing. Applicants shall have delivered the notice by first class mail to adjoining landowners or landowners within [200] feet of the property at least [10] days prior to such a hearing. Proof of mailing shall be provided to the [Reviewing Board] at the public hearing.
- 3) referred to the [County Planning Department] pursuant to General Municipal Law § 239-m if required.
- 4) upon closing of the public hearing, the [Reviewing Board] shall take action on the application within 62 days of the public hearing, which can include approval, approval with conditions, or denial. The 62-day period may be extended upon consent by both the [Reviewing Board] and applicant.

B. Underground Requirements. All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility, with the exception of the main service connection at the utility company

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right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way.

- C. Vehicular Paths. Vehicular paths within the site shall be designed to minimize the extent of impervious materials and soil compaction.
- D. Signage.
 - 1) No signage or graphic content shall be displayed on the Solar Energy Systems except the manufacturer's name, equipment specification information, safety information, and 24-hour emergency contact information. Said information shall be depicted within an area no more than [8] square feet.
 - 2) As required by National Electric Code (NEC), disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.
- E. Glare. All Solar Panels shall have anti-reflective coating(s).
- F. Lighting. Lighting of the Solar Energy Systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.
- G. Tree-cutting. Removal of existing trees larger than [6] inches in diameter should be minimized to the extent possible.
- H. Decommissioning.
 - 1) Solar Energy Systems that have been abandoned and/or not producing electricity for a period of [1] year shall be removed at the Owner and/or Operators expense, which at the Owner's option may come from any security made with the [Village/Town/City] as set forth in Section 10(b) herein.
 - 2) A decommissioning plan (see example decommissioning agreement) signed by the owner and/or operator of the Solar Energy System shall be submitted by the applicant, addressing the following:
 - a. The cost of removing the Solar Energy System.
 - b. The time required to decommission and remove the Solar Energy System any ancillary structures.
 - c. The time required to repair any damage caused to the property by the installation and removal of the Solar Energy System.
 - 3) Security.
 - a. The deposit, executions, or filing with the [Village/Town/City] Clerk of cash, bond, or other form of security reasonably acceptable to the [Village/Town/City] attorney and/or engineer, shall be in an amount sufficient to ensure the good faith performance of the terms and conditions of the permit issued pursuant hereto and to provide for the removal and restorations of the site subsequent to removal. The amount of the bond or security shall be [125] % of the cost of removal of the Tier 3 Solar Energy System and restoration of the property with an escalator of [2] % annually for the life of the Solar Energy System. The decommissioning amount shall be reduced by the amount of the estimated salvage value of the Solar Energy System.
 - b. In the event of default upon performance of such conditions, after proper notice and expiration of any cure periods, the cash deposit, bond, or security shall be forfeited to the [Village/Town/City], which shall be entitled to maintain an action thereon. The cash deposit, bond, or security shall remain in full force and effect until restoration of the property as set forth in the decommissioning plan is completed.
- I. Site plan application. For any Solar Energy system requiring a Special Use Permit, site plan approval shall be required. Any site plan application shall include the following information:
 - 1) Property lines and physical features, including roads, for the project site

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- 2) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, and screening vegetation or structures
 - 3) A one- or three-line electrical diagram detailing the Solar Energy System layout, solar collector installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and over current devices.
 - 4) A preliminary equipment specification sheet that documents all proposed solar panels, significant components, mounting systems, and inverters that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of building permit.
 - 5) Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the Solar Energy System. Such information of the final system installer shall be submitted prior to the issuance of building permit.
 - 6) Name, address, phone number, and signature of the project applicant, as well as all the property owners, demonstrating their consent to the application and the use of the property for the Solar Energy System.
 - 7) Zoning district designation for the parcel(s) of land comprising the project site.
 - 8) Property Operation and Maintenance Plan. Such plan shall describe continuing photovoltaic maintenance and property upkeep, such as mowing and trimming.
 - 9) Erosion and sediment control and storm water management plans prepared to New York State Department of Environmental Conservation standards, if applicable, and to such standards as may be established by the Planning Board.
 - 10) Prior to the issuance of the building permit or final approval by the [Reviewing Board], but not required as part of the application, engineering documents must be signed and sealed by a New York State (NYS) Licensed Professional Engineer or NYS Registered Architect.
- J. Special Use Permit Standards.
- 1) Lot size
 - a. The property on which the Tier 3 Solar Energy System is placed shall meet the lot size requirements of the underlying zoning district.

OR

The property on which the Tier 3 Solar Energy System is placed shall meet the lot size requirements in the following table.

Zoning District	Tier 3 Solar Energy Systems
[Residential Low Density]	≥ 2 acres
[Residential High Density]	Not Allowed
[Commercial / Business]	≥ 5 acres
[Light Industrial]	Not Applicable
[Heavy Industrial]	Not Applicable
[Agricultural / Residential]	≥ 5 acres

- 2) Setbacks
 - a. The Tier 3 Solar Energy Systems shall comply with the setback requirements of the underlying zoning district for principal structures.

OR

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The Tier 3 Solar Energy Systems shall meet the setback requirements in the following table. Fencing, access roads and landscaping may occur within the setback.

Zoning District	Tier 3 Ground-Mounted		
	Front	Side	Rear
[Residential Low Density]	100'	100'	100'
[Residential High Density]	Not Allowed	Not Allowed	Not Allowed
[Commercial / Business]	30'	15'	25'
[Light Industrial]	30'	15'	25'
[Heavy Industrial]	30'	15'	25'
[Agricultural / Residential]	30'	15'	25'

3) Height

- a. The Tier 3 Solar Energy Systems shall comply with the building height limitations for principal structures of the underlying zoning district.

OR

- b. The Tier 3 Solar Energy Systems shall comply with the height limitations measured from the highest natural grade below each solar panel in the following table depending on the underlying zoning district.

Zoning District	Tier 1 Roof-Mounted	Tier 2	Tier 3
[Residential Low Density]	2' above roof	10'	15'
[Residential High Density]	2' above roof	10'	Not Allowed
[Commercial / Business]	4' above roof	15'	20'
[Light Industrial]	4' above roof	15'	20'
[Heavy Industrial]	4' above roof	15'	20'
[Agricultural / Residential]	2' above roof	15'	20'

4) Lot coverage

- a. The following components of a Tier 3 Solar Energy System shall be considered included in the calculations for lot coverage requirements:
 - I. Foundation systems, typically consisting of driven piles or monopoles or helical screws with or without small concrete collars.
 - II. All mechanical equipment of the Solar Energy System, including any pad mounted structure for batteries, switchboard, transformers, or storage cells.
 - III. Paved access roads servicing the Solar Energy System.
- b. Lot coverage of the Solar Energy System, as defined above, shall not exceed the maximum lot coverage requirement of the underlying zoning district.

5) Fencing Requirements. All mechanical equipment, including any structure for storage batteries, shall be enclosed by a [7-foot-high] fence, as required by NEC, with a self-locking gate to prevent unauthorized access.

6) Screening and Visibility.

- a. Solar Energy Systems smaller than [10] acres shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area.
- b. Solar Energy Systems larger than [10] acres shall be required to:

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- I. Conduct a visual assessment of the visual impacts of the Solar Energy System on public roadways and adjacent properties. At a minimum, a line-of-sight profile analysis shall be provided. Depending upon the scope and
- II. potential significance of the visual impacts, additional impact analyses, including for example a digital viewshed report, [shall/may] be required to be submitted by the applicant.
- III. Submit a screening & landscaping plan to show adequate measures to screen through landscaping, grading, or other means so that views of Solar Panels and Solar Energy Equipment shall be minimized as reasonably practical from public roadways and adjacent properties to the extent feasible.
 - i. The screening & landscaping plan shall specify the locations, elevations, height, plant species, and/or materials that will comprise the structures, landscaping, and/or grading used to screen and/or mitigate any adverse aesthetic effects of the system. The landscaped screening shall be comprised of a minimum of [1] evergreen tree, at least [6] feet high at time of planting, plus [2] supplemental shrubs at the reasonable discretion of the [Village/Town/city] [Reviewing Board], all planted within each [10] linear feet of the Solar Energy System. Existing vegetation may be used to satisfy all or a portion of the required landscaped screening. A list of suitable evergreen tree and shrub species should be provided by the [Village/Town/city].

OR

The screening & landscaping plan shall specify the locations, elevations, height, plant species, and/or materials that will comprise the structures, landscaping, and/or grading used to screen and/or mitigate any adverse aesthetic effects of the system, following the applicable rules and standards established by the [Village/Town/County].

- 7) Agricultural Resources. For projects located on agricultural lands:
- a. Any Tier 3 Solar Energy System located on the areas that consist of Prime Farmland or Farmland of Statewide Importance shall not exceed [50] % of the area of Prime Farmland or Farmland of Statewide Importance on the parcel.

OR

Any Tier 3 Solar Energy System located on the areas that consist of Prime Farmland or Farmland of Statewide Importance shall not exceed [50] % of the entire lot.

AND/OR

Tier 3 Solar Energy Systems on Prime Farmland or Farmland of Statewide Importance shall be required to seed [20] % of the total surface area of all solar panels on the lot with native perennial vegetation designed to attract pollinators.

- b. To the maximum extent practicable, Tier 3 Solar Energy Systems located on Prime Farmland shall be constructed in accordance with the construction requirements of the New York State Department of Agriculture and Markets.
- c. Tier 3 Solar Energy System owners shall develop, implement, and maintain native vegetation to the extent practicable pursuant to a vegetation management plan by providing native perennial vegetation and foraging habitat beneficial to game birds, songbirds, and pollinators. To the extent

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practicable, when establishing perennial vegetation and beneficial foraging habitat, the owners shall use native plant species and seed mixes.

- K. Ownership Changes. If the owner or operator of the Solar Energy System changes or the owner of the property changes, the special use permit shall remain in effect, provided that the successor owner or operator assumes in writing all of the obligations of the special use permit, site plan approval, and decommissioning plan. A new owner or operator of the Solar Energy System shall notify the zoning enforcement officer of such change in ownership or operator within [30] days of the ownership change.

AND/OR

6/9. Permitting Requirements for Tier 1 Battery Energy Storage Systems

Tier 1 Battery Energy Storage Systems shall be permitted in all zoning districts, subject to the Uniform Code and the "Battery Energy Storage System Permit," and exempt from site plan review.

7/10. Permitting Requirements for Tier 2 Battery Energy Storage Systems

Tier 2 Battery Energy Storage Systems are permitted through the issuance of a [special use permit] within the [XXXXXXXXXXXXX, XXXXXXXXXXX, XXXXXXXXXXX] zoning districts, and shall be subject to the Uniform Code and the site plan application requirements set forth in this Section.

- A. Applications for the installation of Tier 2 Battery Energy Storage System shall be:
- 1) reviewed by the [Code Enforcement/Zoning Enforcement Officer or Reviewing Board] for completeness. An application shall be complete when it addresses all matters listed in this Local Law including, but not necessarily limited to, (i) compliance with all applicable provisions of the Uniform Code and all applicable provisions of the Energy Code and (ii) matters relating to the proposed battery energy storage system and Floodplain, Utility Lines and Electrical Circuitry, Signage, Lighting, Vegetation and Tree-cutting, Noise, Decommissioning, Site Plan and Development, Special Use and Development, Ownership Changes, Safety, and Permit Time Frame and Abandonment. Applicants shall be advised within [10] business days of the completeness of their application or any deficiencies that must be addressed prior to substantive review.
 - 2) subject to a public hearing to hear all comments for and against the application. The [Reviewing Board] of the [Village/Town/City] shall have a notice printed in a newspaper of general circulation in the [Village/Town/City] at least [5] days in advance of such hearing. Applicants shall have delivered the notice by first class mail to adjoining landowners or landowners within [200] feet of the property at least [10] days prior to such a hearing. Proof of mailing shall be provided to the [Reviewing Board] at the public hearing.
 - 3) referred to the [County Planning Department] pursuant to General Municipal Law § 239-m if required.
 - 4) upon closing of the public hearing, the [Reviewing Board] shall take action on the application within 62 days of the public hearing, which can include approval, approval with conditions, or denial. The 62-day period may be extended upon consent by both the [Reviewing Board] and Applicant.
- B. Utility Lines and Electrical Circuitry. All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility, with the exception of the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way.

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C. Signage.

- 1) The signage shall be in compliance with ANSI Z535 and shall include the type of technology associated with the battery energy storage systems, any special hazards associated, the type of suppression system installed in the area of battery energy storage systems, and 24-hour emergency contact information, including reach-back phone number.
- 2) As required by the NEC, disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.

D. Lighting. Lighting of the battery energy storage systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.

E. Vegetation and tree-cutting. Areas within [10] feet on each side of Tier 2 Battery Energy Storage Systems shall be cleared of combustible vegetation and other combustible growth. Single specimens of trees, shrubbery, or cultivated ground cover such as green grass, ivy, succulents, or similar plants used as ground covers shall be permitted to be exempt provided that they do not form a means of readily transmitting fire. Removal of trees should be minimized to the extent possible.

F. Noise. The [1-hour] average noise generated from the battery energy storage systems, components, and associated ancillary equipment shall not exceed a noise level of [60] dBA as measured at the outside wall of any non-participating residence or occupied community building. Applicants may submit equipment and component manufacturers noise ratings to demonstrate compliance. The applicant may be required to provide Operating Sound Pressure Level measurements from a reasonable number of sampled locations at the perimeter of the battery energy storage system to demonstrate compliance with this standard.

G. Decommissioning.

- 1) Decommissioning Plan. The applicant shall submit a decommissioning plan, developed in accordance with the Uniform Code, to be implemented upon abandonment and/or in conjunction with removal from the facility. The decommissioning plan shall include:
 - a. A narrative description of the activities to be accomplished, including who will perform that activity and at what point in time, for complete physical removal of all battery energy storage system components, structures, equipment, security barriers, and transmission lines from the site;
 - b. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations;
 - c. The anticipated life of the battery energy storage system;
 - d. The estimated decommissioning costs and how said estimate was determined;
 - e. The method of ensuring that funds will be available for decommissioning and restoration;
 - f. The method by which the decommissioning cost will be kept current;
 - g. The manner in which the site will be restored, including a description of how any changes to the surrounding areas and other systems adjacent to the battery energy storage system, such as, but not limited to, structural elements, building penetrations, means of egress, and required fire detection suppression systems, will be protected during decommissioning and confirmed as being acceptable after the system is removed; and
 - h. A listing of any contingencies for removing an intact operational energy storage system from service, and for removing an energy storage system from service that has been damaged by a fire or other event.
- 2) Decommissioning Fund. The owner and/or operator of the energy storage system, shall continuously maintain a fund or bond payable to the [Village/Town/City], in a form approved by the

Planning for Solar Energy Projects

[Village/Town/City] for the removal of the battery energy storage system, in an amount to be determined by the [Village/Town/City], for the period of the life of the facility. This fund may consist of a letter of credit from a State of New York licensed-financial institution. All costs of the financial security shall be borne by the applicant.

- H. Site plan application. For a Tier 2 Battery Energy Storage System requiring a Special Use Permit, site plan approval shall be required. Any site plan application shall include the following information:
- 1) Property lines and physical features, including roads, for the project site.
 - 2) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, and screening vegetation or structures.
 - 3) A [one- or three-line] electrical diagram detailing the battery energy storage system layout, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and over current devices.
 - 4) A preliminary equipment specification sheet that documents the proposed battery energy storage system components, inverters and associated electrical equipment that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of building permit.
 - 5) Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the battery energy storage system. Such information of the final system installer shall be submitted prior to the issuance of building permit.
 - 6) Name, address, phone number, and signature of the project Applicant, as well as all the property owners, demonstrating their consent to the application and the use of the property for the battery energy storage system.
 - 7) Zoning district designation for the parcel(s) of land comprising the project site.
 - 8) Commissioning Plan. Such plan shall document and verify that the system and its associated controls and safety systems are in proper working condition per requirements set forth in the Uniform Code. Where commissioning is required by the Uniform Code, Battery energy storage system commissioning shall be conducted by a New York State (NYS) Licensed Professional Engineer after the installation is complete but prior to final inspection and approval. A corrective action plan shall be developed for any open or continuing issues that are allowed to be continued after commissioning. A report describing the results of the system commissioning and including the results of the initial acceptance testing required in the Uniform Code shall be provided to [Code Enforcement/Zoning Enforcement Officer or Reviewing Board] prior to final inspection and approval and maintained at an approved on-site location.
 - 9) Fire Safety Compliance Plan. Such plan shall document and verify that the system and its associated controls and safety systems are in compliance with the Uniform Code.
 - 10) Operation and Maintenance Manual. Such plan shall describe continuing battery energy storage system maintenance and property upkeep, as well as design, construction, installation, testing and commissioning information and shall meet all requirements set forth in the Uniform Code.
 - 11) Erosion and sediment control and storm water management plans prepared to New York State Department of Environmental Conservation standards, if applicable, and to such standards as may be established by the Planning Board.
 - 12) Prior to the issuance of the building permit or final approval by the [Reviewing Board], but not required as part of the application, engineering documents must be signed and sealed by a NYS Licensed Professional Engineer.
 - 13) Emergency Operations Plan. A copy of the approved Emergency Operations Plan shall be given to the system owner, the local fire department, and local fire code official. A permanent copy shall also be

placed in an approved location to be accessible to facility personnel, fire code officials, and emergency responders. The emergency operations plan shall include the following information:

- a. Procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions to reduce the risk of fire, electric shock, and personal injuries, and for safe start-up following cessation of emergency conditions.
 - b. Procedures for inspection and testing of associated alarms, interlocks, and controls.
 - c. Procedures to be followed in response to notifications from the Battery Energy Storage Management System, when provided, that could signify potentially dangerous conditions, including shutting down equipment, summoning service and repair personnel, and providing agreed upon notification to fire department personnel for potentially hazardous conditions in the event of a system failure.
 - d. Emergency procedures to be followed in case of fire, explosion, release of liquids or vapors, damage to critical moving parts, or other potentially dangerous conditions. Procedures can include sounding the alarm, notifying the fire department, evacuating personnel, de-energizing equipment, and controlling and extinguishing the fire.
 - e. Response considerations similar to a safety data sheet (SDS) that will address response safety concerns and extinguishment when an SDS is not required.
 - f. Procedures for dealing with battery energy storage system equipment damaged in a fire or other emergency event, including maintaining contact information for personnel qualified to safely remove damaged battery energy storage system equipment from the facility.
 - g. Other procedures as determined necessary by the [Village/Town/City] to provide for the safety of occupants, neighboring properties, and emergency responders.
 - h. Procedures and schedules for conducting drills of these procedures and for training local first responders on the contents of the plan and appropriate response procedures.
- I. Special Use Permit Standards.
- 1) Setbacks. Tier 2 Battery Energy Storage Systems shall comply with the setback requirements of the underlying zoning district for principal structures.
 - 2) Height. Tier 2 Battery Energy Storage Systems shall comply with the building height limitations for principal structures of the underlying zoning district.
 - 3) Fencing Requirements. Tier 2 Battery Energy Storage Systems, including all mechanical equipment, shall be enclosed by a [7-foot-high] fence with a self-locking gate to prevent unauthorized access unless housed in a dedicated-use building and not interfering with ventilation or exhaust ports.
 - 4) Screening and Visibility. Tier 2 Battery Energy Storage Systems shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area and not interfering with ventilation or exhaust ports.
- J. Ownership Changes. If the owner of the battery energy storage system changes or the owner of the property changes, the special use permit shall remain in effect, provided that the successor owner or operator assumes in writing all of the obligations of the special use permit, site plan approval, and decommissioning plan. A new owner or operator of the battery energy storage system shall notify the [Code Enforcement/Zoning Enforcement Officer] of such change in ownership or operator within [30] days of the ownership change. A new owner or operator must provide such notification to the [Code Enforcement/Zoning Enforcement Officer] in writing. The special use permit and all other local approvals for the battery energy storage system would be void if a new owner or operator fails to provide written

Planning for Solar Energy Projects

notification to the [Code Enforcement/Zoning Enforcement Officer] in the required timeframe.

Reinstatement of a void special use permit will be subject to the same review and approval processes for new applications under this Local Law.

8/11. Safety

- A. Solar Energy Systems and Solar Energy Equipment shall be certified under the applicable electrical and/or building codes as required.
- B. Solar Energy Systems shall be maintained in good working order and in accordance with industry standards. Site access shall be maintained, including snow removal at a level acceptable to the local fire department and, if the Tier 3 Solar Energy System is located in an ambulance district, the local ambulance corps.
- C. If Storage Batteries are included as part of the Solar Energy System, they shall meet the requirements of any applicable fire prevention and building code when in use and, when no longer used, shall be disposed of in accordance with the laws and regulations of the [Village/Town/City] and any applicable federal, state, or county laws or regulations.

AND/OR

- A. System Certification. Battery energy storage systems and equipment shall be listed by a Nationally Recognized Testing Laboratory to UL 9540 (Standard for battery energy storage systems and Equipment) or approved equivalent, with subcomponents meeting each of the following standards as applicable:
 - 1) UL 1973 (Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail Applications), 2) UL 1642 (Standard for Lithium Batteries),
 - 2) UL 1741 or UL 62109 (Inverters and Power Converters),
 - 3) Certified under the applicable electrical, building, and fire prevention codes as required.
 - 4) Alternatively, field evaluation by an approved testing laboratory for compliance with UL 9540 (or approved equivalent) and applicable codes, regulations and safety standards may be used to meet system certification requirements.
- B. Site Access. Battery energy storage systems shall be maintained in good working order and in accordance with industry standards. Site access shall be maintained, including snow removal at a level acceptable to the local fire department and, if the Tier 2 Battery Energy Storage System is located in an ambulance district, the local ambulance corps.
- C. Battery energy storage systems, components, and associated ancillary equipment shall have required working space clearances, and electrical circuitry shall be within weatherproof enclosures marked with the environmental rating suitable for the type of exposure in compliance with NFPA 70.

9/12. Permit Time Frame and Abandonment

- A. The Special Use Permit and site plan approval for a Solar Energy System shall be valid for a period of [18] months, provided that a building permit is issued for construction [or] construction is commenced. In the event construction is not completed in accordance with the final site plan, as may have been amended and approved, as required by the [Reviewing Board], within [18] months after approval, the applicant or the [Village/Town/City] may extend the time to complete construction for [180] days. If the owner and/or operator fails to perform substantial construction after [24] months, the approvals shall expire.

Planning for Solar Energy Projects

- B. Upon cessation of electricity generation of a Solar Energy System on a continuous basis for [12] months, the [Village/Town/City] may notify and instruct the owner and/or operator of the Solar Energy System to implement the decommissioning plan. The decommissioning plan must be completed within [360] days of notification.
- C. If the owner and/or operator fails to comply with decommissioning upon any abandonment, the [Village/Town/City] may, at its discretion, utilize the bond and/or security for the removal of the Solar Energy System and restoration of the site in accordance with the decommissioning plan.

AND/OR

- A. The Special Use Permit and site plan approval for a battery energy storage system shall be valid for a period of [24] months, provided that a building permit is issued for construction [and/or] construction is commenced. In the event construction is not completed in accordance with the final site plan, as may have been amended and approved, as required by the [Reviewing Board], within [24] months after approval, [Village/Town/City] may extend the time to complete construction for [180] days. If the owner and/or operator fails to perform substantial construction after [36] months, the approvals shall expire.
- B. The battery energy storage system shall be considered abandoned when it ceases to operate consistently for [more than one year]. If the owner and/or operator fails to comply with decommissioning upon any abandonment, the [Village/Town/City] may, at its discretion, enter the property and utilize the available bond and/or security for the removal of a Tier 2 Battery Energy Storage System and restoration of the site in accordance with the decommissioning plan.

10/13. Enforcement

Any violation of this Solar Energy Law AND/OR Battery Energy Storage System Law shall be subject to the same enforcement requirements, including the civil and criminal penalties, provided for in the zoning or land use regulations of [Village/Town/City].

11/14. Severability

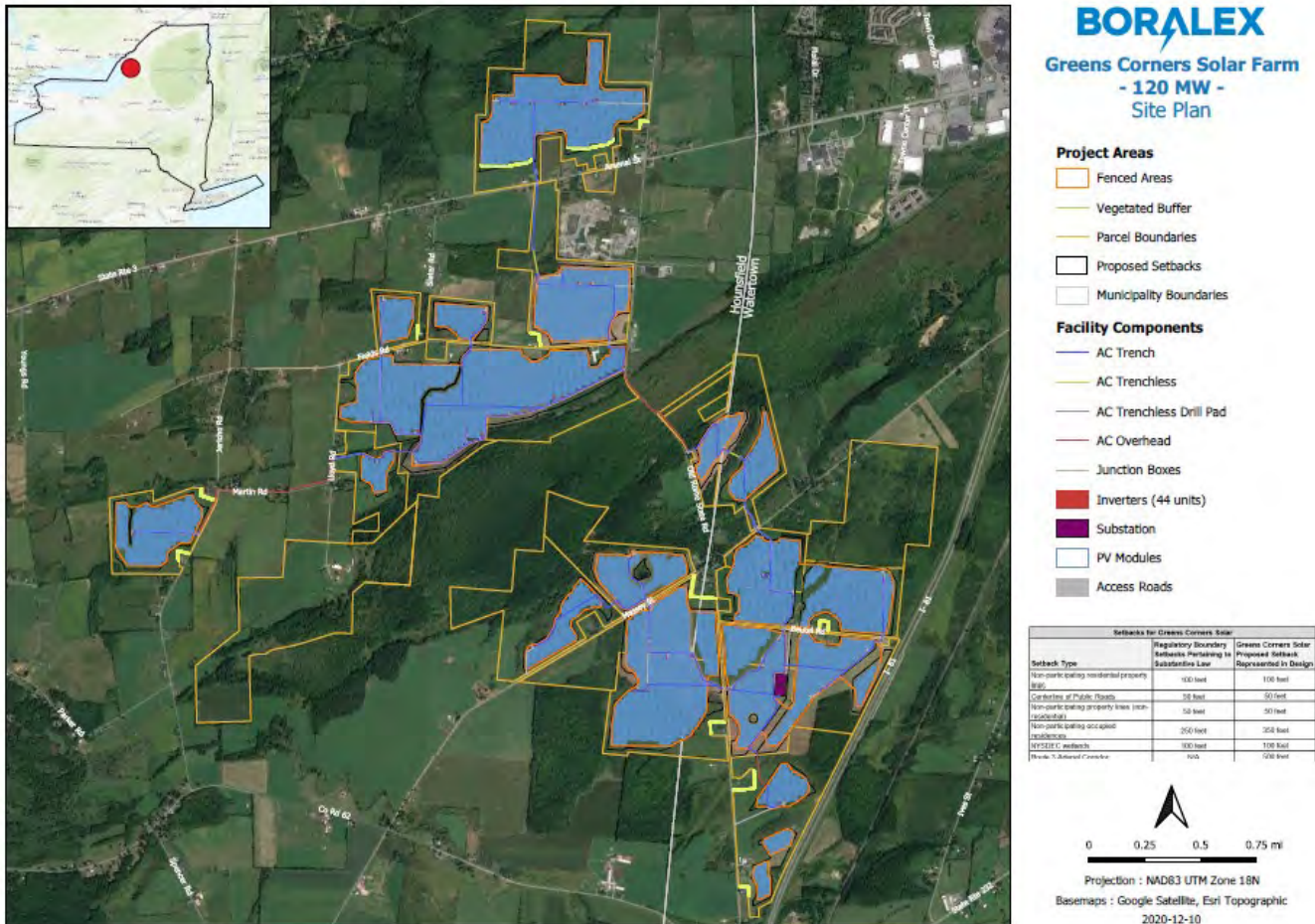
The invalidity or unenforceability of any section, subsection, paragraph, sentence, clause, provision, or phrase of the aforementioned sections, as declared by the valid judgment of any court of competent jurisdiction to be unconstitutional, shall not affect the validity or enforceability of any other section, subsection, paragraph, sentence, clause, provision, or phrase, which shall remain in full force and effect.

Appendix C: Example site plan for community solar project in Camden, NY



Planning for Solar Energy Projects

Appendix D: Example site plan for large/utility solar energy system in Watertown and Hounsfield, NY



Appendix E: Example Notice of Intent correspondence for NYSDAM review



Agriculture and Markets

ANDREW M. CUOMO
Governor

RICHARD A. BALL
Commissioner

November 1, 2019

Mr. Doug Shelmidine
Chair, Jefferson County, AFPB
175 Arsenal Street
Watertown, NY 13601

RE: Final Notice of Intent to Undertake an Action within an Agricultural District, Nexamp, Inc., Adams Renewables, in the Town of Adams, Jefferson County Agricultural District No. 3

Dear Mr. Shelmidine:

I have determined that the enclosed Final Notice of Intent, filed with this Department by NYSERDA, for the advance of public funds for the construction of a 3.3 MW solar array, in the Town of Adams, located in Jefferson County Agricultural District No. 3, is complete.

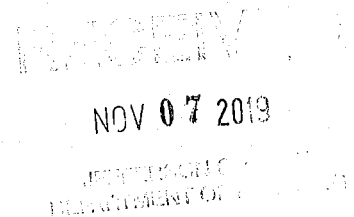
Accordingly, pursuant to the Agriculture and Markets Law, Section 305(4), I am forwarding a copy of the Final Notice for your review and comment on the effect of the proposed action on state environmental plans policies and objectives.

Pursuant to Section 305(4), the statutory review period is forty-five (45) days. As such, I would appreciate your response by December 1, 2019. Should no response be received by this date, I will assume that you have found that the proposed action would not have an unreasonably adverse effect upon state environmental plans, policies and objectives.

Sincerely,

Kate Tylutki
Senior Environmental Analyst

Enc.
File: 19/089-NOI





Agriculture and Markets

ANDREW M. CUOMO
Governor

RICHARD A. BALL
Commissioner

November 1, 2019

Candace Rossi, Project Manager
NYSERDA, NY-Sun
17 Columbia Circle
Albany, NY 12203

RE: Final Notice of Intent to Undertake an Action within an Agricultural District, Nexamp, Inc., Adams Renewables, in the Town of Adams, Jefferson County Agricultural District No. 3

Dear Ms. Rossi:

I have determined that the enclosed Final Notice of Intent, filed with this Department by NYSERDA, for the advance of public funds for the construction of a 3.3 MW solar array, in the Town of Adams, located in Jefferson County Agricultural District No. 3, is complete.

The Final Notice has been forwarded to the Commissioner of Environmental Conservation, the Advisory Council on Agriculture, and the County Agricultural and Farmland Protection Board. In consultation with them, the Commissioner shall review the proposed action during the next forty-five (45) day period commencing November 1, 2019 and make an initial determination whether the action will have an unreasonably adverse effect on the continuing viability of a farm enterprise, or enterprises within the district and state environmental plans, policies and objectives. Furthermore, the Department will be exploring acceptable mitigation options for the proposed project during the next thirty (30) days.

Please be advised that the Department's acceptance as complete of the Final Notice of Intent for the proposed action does not authorize commencement of the project. In order to comply with the provisions of Section 305(4), no funds may be advanced to construct the facility or to acquire land within the district until the Notice process has been completed as set forth in Section 305(4).

Please do not hesitate to contact me, at (518) 457-2851 if you have any questions regarding your Notice filing.

Sincerely,

Kate Tylutki
Senior Environmental Analyst

cc: Doug Shelmidine, Chair, Jefferson County AFPB
David W. Kellogg, Supervisor, Town of Adams
Joe Fiori, Director, Business Development, Nexamp
File: 19/089-NOI



NYSERDA

ANDREW M. CUOMO
Governor

RICHARD L. KAUFFMAN
Chair

ALICIA BARTON
President and CEO

Commissioner Richard Ball
NYS Department of Agriculture and Markets
10B Airline Drive
Albany, NY 12235

September 16, 2019

SENT VIA ELECTRONIC MAIL

*Re: Notice of Intent to Undertake an Action Within an Agricultural District
Nexamp, Adams Renewables in the Town of Adams*

Dear Mr. Ball:

Pursuant to New York State Agriculture and Markets Law (AML) Section 305(4)(b), the New York State Energy Research and Development Authority (NYSERDA) hereby files a Notice of Intent to undertake an action within a State-certified Agricultural District.

NYSERDA has reviewed the attached information submitted by Borrego Solar Systems, the project developer, for the construction of the *Adams Renewables* at 13400 NY-Route 178, Adams, New York. The information provided herein is accurate to the extent of NYSERDA's knowledge.

Sincerely,

Candace Rossi
Project Manager, NY-Sun

Cc: Kathleen Tylutki, NYSDAM
Joseph Fiori, Nexamp

Enclosures

New York State Energy Research and Development Authority

Albany
17 Columbia Circle, Albany, NY 12203-6399
(P) 1-866-NYSERDA | (F) 518-862-1091
nyserda.ny.gov | info@nyserda.ny.gov

Buffalo
726 Exchange Street
Suite 821
Buffalo, NY
14210-1484
(P) 716-842-1522
(F) 716-842-0156

New York City
1359 Broadway
19th Floor
New York, NY
10018-7842
(P) 212-971-5342
(F) 518-862-1091

**West Valley Site
Management Program**
9030-B Route 219
West Valley, NY
14171-9500
(P) 716-942-9960
(F) 716-942-9961



NYSERDA

ANDREW M. CUOMO
Governor

RICHARD L. KAUFFMAN
Chair

ALICIA BARTON
President and CEO

NYS Department of Agriculture and Markets – Agriculture Districts Law §305 Notice of Intent to Undertake an Action Within an Agricultural District

Instructions: The purpose of this form is to provide NYSERDA with the necessary information required to submit a Notice of Intent to the Department of Agriculture and Markets on behalf of the Project Sponsor. Please populate all fields in this template, as applicable, and return to NYSERDA, with a copy to commercial.industrialpv@nyserda.ny.gov. Please add additional documents if desired and include required maps and/or other figures as outlined below in the response sent to NYSERDA.

I. Project Description

Nexamp is proposing to develop a 3.3 MW (AC) community solar project (the Facility) on privately-owned property. The Facility is located at 13400 NY-Route 178, Adams New York. The total Facility footprint will encompass ± 17.7 -acres of land located on one ± 48.10 -acre parcel.

Working with the landowner, Crystal Dale Farm, we identified this parcel as being one of his least productive agricultural lands. This parcel contains bedrock at 19"-26", as noted in the Soils Map, Depth to Restrictive Layer. Moreover, our deep tests pits showed several locations with bedrock at an even shallower depth. Given these difficult conditions, we believe this is an ideal location for a solar array.

We will also be working with the landowner to ensure that access to the adjoining parcel to the south is still feasible, which contains approximately 18 acres of active farmland.

Project Contact Information:

Project Name: **Adams Renewables, LLC**
Public Entity: **NYS Energy and Research Development Authority**
Developer: **Nexamp, Inc.** Seller:

Project Sponsor Information:

Name/Title: **Joseph Fiori, Director, Business Development** Email: **jfiori@nexamp.com**
Phone Number: **508.948.8060** Fax Number:

Contact Information of other individuals authorized to respond to NYSDAM inquiries:

Name/Title: Email:
Phone Number: Fax Number:

New York State Energy Research and Development Authority

Albany
17 Columbia Circle, Albany, NY 12203-6399
(P) 1-866-NYSERDA | (F) 518-862-1091
nyserda.ny.gov | info@nyserda.ny.gov

Buffalo
726 Exchange Street
Suite 821
Buffalo, NY
14210-1484
(P) 716-842-1522
(F) 716-842-0156

New York City
1359 Broadway
19th Floor
New York, NY
10018-7842
(P) 212-971-5342
(F) 518-862-1091

**West Valley Site
Management Program**
9030-B Route 219
West Valley, NY
14171-9500
(P) 716-942-9960
(F) 716-942-9961

Affected Landowners (Provide only the names, addresses and tax parcel identification numbers for the landowners that are directly affected by the construction of the proposed project, within the agricultural district. This includes the owners of the land where the project will be constructed and any other landowner that may be affected by the construction of an access road or transmission lines across their property. Do not include below landowners within the project vicinity that are not within the agricultural district. This can complicate the review process):

The landowner will no longer be able to farm 17.7 acres of his parcel 48 acre parcel. We will ensure the landowner has access to his adjoining 18 acre property to the south.

1. Name(s): **Crystal Dale Farm**
Address: **13400 NY-Route 178, Adams New York**

Parcel Number(s):

2. Name(s):
Address:

Parcel Number(s):

3. Name:
Address:

Parcel Number(s):

4. Name:
Address:

Parcel Number(s):

5. Name:
Address:

Parcel Number(s):

III. Agricultural Impact of the Proposed Action:

Describe and assess all short-term and long-term effects associated with the proposed action, including an assessment of any agricultural impacts and any concerns expressed by farm landowners directly affected by the proposed action.

No short or long terms agricultural impacts are expected, save for the 17.7 acres of land that is being taken out of production during the lease period. After the lease period, Nexamp will return the site to its original condition.

The PV mounting system framework will be dismantled and recycled. The steel piles will be removed and recycled. All other associated structures will be demolished and removed from the site for recycling or disposal. This will include the site fence and gates, which will likely be reclaimed or recycled.

All concrete piers, footers or other supports will be removed to a depth of 48 inches and clean concrete will be crushed and disposed of off-site or recycled (reused either on- or off-site).

A final site walkthrough will be conducted to remove debris and/or trash generated during the decommissioning process and will include removal and proper disposal of any debris that may have been wind-blown to areas outside the immediate footprint of the Facility being removed.

VI. Mitigation measures proposed:

- a. Describe any mitigation measures proposed to minimize the adverse impact of the proposed action on the continuing viability of a farm enterprise or enterprises within the district. Indicate if the proposed action will follow NYSDAM's Guidelines for Agricultural Mitigation for Solar Energy Projects and describe specifically which guidelines are incorporated.

Nexamp intends to implement techniques and Best Management Practices (BMPs) for the proposed solar photovoltaic Facility to be constructed on private property located off of Route 178, in Adams, New York. Our BMPs are consistent with the New York State Department of Agriculture and Markets Guidelines for Agricultural Mitigation for Solar Energy Projects, Revision 4/19/2018.

Agricultural Soil Protection

The primary approach to protecting agricultural soils will be to limit areas of disturbance. Where ground disturbance will occur related to construction activities, best management practices will be used to ensure topsoil protection.

The topsoil will be removed in areas of planned equipment traffic, staging and storage areas. The topsoil will be segregated and stockpiled for later reuse. Excavated subsoil will be stockpiled in a separate location.

Vehicle traffic will be minimized to avoid compaction of subsoils. Vehicle traffic and parking areas will be limited to the access road and/or designated work areas, such as laydown areas. Vehicles or equipment will not be allowed outside the work areas without prior approval from the landowner. In addition, all construction debris and metal objects must be removed and properly disposed of to prevent mixing with any topsoil.

relatively dry topsoil/subsoil conditions exist. No project restoration activities will occur in agricultural fields between the months of October through May unless favorable soil moisture conditions exist.

Mowing operations will typically be conducted two to four times per season, depending on the weather conditions and resultant growth. Normally, two to four personnel using ride-on and self-propelled mowers and weed whackers will perform the mowing operations.

The entire Site is inspected for any erosion problems upon each site visit and maintenance activity, at minimum of two times per year. Any erosion to roads, embankments, drainage structures/basins, ground cover, etc. is repaired using similar methods to the initial install, with like equipment and materials. Potentially, additional erosion control blankets, jute netting, etc. will be added to protect the maintenance improvement.

Seeding

Any restored agricultural areas will be seeded with a native seed mix.

Removal of Construction Debris

Following the completion of restoration, all construction debris will be removed from the site.

Describe any aspects of the proposed action which would encourage non-farm development, where applicable and appropriate, including any local zoning restrictions which apply to the area.

Nothing about this project will encourage non-farm development. In fact, the landowner has made it clear that this project will help to support and even expand existing farm operations.

When this form is completed, the Project Sponsor must provide his/her signature prior to submitting the form to NYSERDA.

**Joseph
Fiori**

Digitally signed by Joseph Fiori
DN: cn=Joseph Fiori, c=US,
email=joe.fiori55@gmail.com
Date: 2019.09.15 22:47:19 -
04'00'

Project Sponsor (Seller)

Date



Candace Rossi, Program Manager
NYSERDA, NY SUN
17 Columbia Circle
Albany, NY 12203

October 21, 2019

RE: Adams Renewables, LLC. Response to Agricultural and Markets Questions

Dear Ms. Rossi,

Please find below Adams Renewables, LLC (the Applicant) response to Agriculture and Markets letter dated October 16th, 2019 to NYSERDA.

1. **Question:** Please provide the Department with the geotechnical analysis of the deep test pits.
Answer: Please find attached the document titled, Deep Test Results. As noted in the report, the depth of the bedrock varied from 10"-35" across the site.
2. **Question:** Provide a list of the other alternative parcels evaluated and why these were not selected. Further, were any other layouts for the proposed parcel evaluated?
Answer: Nexamp reached out to several other landowners along state route 178 but did not hear a response. The owner of this parcel stated that of the parcels owned by their farm operations, this one was the least productive due to the drainage issues associated with the shallow bedrock. We chose this location and design layout because it minimized the amount of viable farmland taken out of production by providing the farmer with access to the 18-acre parcel to the south.
3. **Question:** Provide a map showing where the access road for the landowner will be, for the 18-acre parcel to the south of the proposed project area.
Answer: Please find the attached Project Map, which shows the 15' wide gravel road that will provide both the Applicant and the farmer access to the PV array and active farming area, respectively. The farmer will use the gravel access road up to the security gate, at which point the access way will hug the eastern boundary fence line (denoted in red) in the Project Map.
4. **Question:** Please explain how the farm/operator of the parcel will make up for the production loss.
Answer: The current farmer is the owner of a 900 cow dairy operation, with over 800 acres of corn and 400-500 of hay crop in active farm production. The 17-18 acres of lost production from this farm makes up less than 2% of its overall acreage in production. Moreover, this parcel represents some of the least productive farmland in this area, given the shallowness of the bedrock and the wetness of the soils.
5. **Question:** Please provide layouts with aerial photography.
Answer: Please see the attached plan, labeled "Aerial Photography".

Appendix F: Example solar lease

LAND LEASE AND SOLAR EASEMENT

This Land Lease and Solar Easement ("Lease") is made on _____, 2020 (the "Effective Date") by and between _____ ("Lessor") and _____ a limited liability company, and its successors and assigns ("Lessee").

RECITALS

- A. Lessor owns that certain real property located in _____ New York and legally described on the attached Exhibit A (the "Property").
- B. Lessee is desirous of developing a solar energy project on the Premises (the "Project"), and Lessor desires to lease a portion of the Property (as more fully described herein, the "Premises") to Lessee for that purpose.
- C. Lessor is willing to lease and grant certain easement rights in the Premises to Lessee, and Lessee is willing to lease and obtain certain easement rights in the Premises from Lessor, all as more fully described below.

KEY TERMS

Development Period	5 years
Extended Term	25 years
Construction Period	2 years
Renewal Terms (3, each)	5 years

47 years

AGREEMENT

NOW THEREFORE, for good and valuable consideration, Lessor and Lessee agree that the above recitals are true and correct in all material respects and are incorporated herein by reference, and further agree as follows:

ARTICLE I. Premises

Section 1.1 General

(a) **Lease of Premises for Solar Energy Purposes.** Lessor leases to Lessee, and Lessee leases from Lessor, the Premises, as identified on the site plan attached hereto as Exhibit A-1 (the "Site Plan"), for the purpose of development and use of a solar facility, including but not limited to monitoring, testing and evaluating the Premises for solar energy generation; activities related to the production of solar energy including constructing, installing, using, maintaining, operating, replacing, relocating and removing solar panels, overhead and underground electrical transmission and communications lines, electric transformers, energy storage facilities, telecommunications equipment, power generation facilities to be operated in conjunction with solar panel installations, including roads, and solar energy measurement equipment, fencing, and

related facilities and equipment (hereinafter "**Solar Facilities**"). Such Solar Facilities shall be installed in compliance with Article VI. Such activities may be conducted by Lessee, its employees, agents, licensees or permittees. Lessee shall have the exclusive right to use the Premises for solar energy purposes. For purposes of this Lease, "solar energy purposes" means converting solar energy into electrical energy, and collecting and transmitting the electrical energy so converted, together with any and all activities related thereto.

(b) Lessee shall use the Premises only for the construction, installation, operation, maintenance, replacement, and removal of Solar Facilities. Lessee shall consult with Lessor on Lessee's site development plan prior to construction on the Premises, showing Lessor the proposed locations of Solar Facilities before making its final decisions as to locations of Solar Facilities on the Premises; provided, however, that Lessee shall make all such final siting decisions in Lessee's sole discretion. Lessee has the right to relocate existing Solar Facilities upon the Premises during the term of this Lease.

(c) Lessor hereby grants to Lessee, for the Term (as defined below), easements over, under, upon and across and on the Property (1) for ingress to and egress from Solar Facilities (whether located on the Premises, on adjacent property or elsewhere) by means of roads and lanes thereon if existing, or otherwise by such route or routes as Lessee may construct from time to time (the "**Access Easement**"). The Access Easement shall include the right to improve existing roads and lanes, or to build new roads, shall run with and bind the Property, and shall inure to the benefit of and be binding upon Lessor and Lessee and their respective transferees, successors and assigns, and all persons claiming under them.

(d) Lessor shall retain the right to use the portion of the Property not included within the Premises.

(e) Notwithstanding any provision to the contrary, Lessee reserves the right to reduce the size of the Premises, at any time during the Term, to that amount of acreage needed for the installation of the Solar Facilities, as described herein, to be selected and further identified with an amended description and site plan, at a future date, all at Lessee's sole discretion. Upon Lessee's exercise of its right to reduce the size of the Premises, all reference to Premises in this Lease shall refer to the Premises as modified by the amended Site Plan, if any.

Section 1.2 Solar Easement

(a) **Solar Easement.** Lessor hereby grants and conveys to Lessee an exclusive easement on, over and across the Property for direct sunlight to any solar panels on the Premises and an exclusive easement prohibiting any obstruction of direct sunlight (collectively, the "**Solar Easement**") throughout the entire Property to and for the benefit of the area existing horizontally three hundred and sixty degrees (360°) from any point where any solar panel is or may be located at any time from time to time (each such point referred to as a "**Site**") and for a distance from each Site to the boundaries of the Property, together vertically through all space located above the surface of the Property, that is, one hundred eighty degrees (180°) or such greater number or numbers of degrees as may be necessary to extend from each point on and along a line drawn along the surface from each point along the exterior boundary of the Property through each Site to each

point and on and along such line to the opposite exterior boundary of the Property. The memorandum described in Section 9.12 shall reference the Solar Easement.

(b) **Lessor Improvements.** Trees, buildings and other improvements located on any contiguous, non-tillable land containing an existing home site on the Property (the “**Existing Homestead**”), as of the date of this Lease shall be allowed to remain, and Lessee may not require their removal. Lessee may require the removal of trees, buildings, and other improvements (an “**Improvement**”) located on the Property outside of the Existing Homestead. Lessor may not place or plant any Improvement on the Property after the date of this Lease which may, in Lessee’s sole judgment, impede or interfere with direct sunlight to any Solar Facilities, unless Lessor has received written approval from Lessee for any such trees, structure or improvement. Notwithstanding the foregoing, Lessor may replace any structure or improvement located in the Property as of the Effective Date (the “**Original Structure or Improvement**”) with a new structure or improvement in the exact same location that does not exceed the size and dimensions in any direction as the Original Structure or Improvement (the “**New Structure or Improvement**”), provided that such New Structure or Improvement does not impede or interfere with direct sunlight to any Solar Facilities in any way that is more detrimental to the Property than the Original Structure or Improvement. If at any time during the duration of this Lease, Lessor would like a variance of the preceding requirements, Lessor may submit a letter of request to Lessee for approval, and approval or denial of such request shall be in Lessee’s sole discretion.

ARTICLE II. Lease Term

Section 2.1 Term

Development Period; Construction Period; Extended Term; Renewal Terms

(a) Lessee’s rights under this Lease continue throughout the term of this Lease (the “**Term**”). Initially, the Term shall be for the Development Period. The “**Development Period**” commences on the Effective Date and expires on the fifth (5th) anniversary of the Effective Date.

(b) The Lease shall automatically be extended for the Construction Period, as defined below, upon the earlier of (i) the date when construction of Solar Facilities commences in connection with the Project (“**Construction Date**”); or (ii) the date when Lessor receives written notice from Lessee of Lessee’s election to extend the term of the Lease for the Construction Period (“**Construction Period Notice Date**”), provided that the Construction Period commences prior to the expiration of the Development Period. The Construction Period of the Lease (“**Construction Period**”) is two (2) years from the earlier of either of the Construction Date or the Construction Period Notice Date unless sooner terminated in accordance with the terms of the Lease. Lessee may record a notice of the Construction Date or the Construction Period Notice Date against the Premises to give notice of such date, and upon the request of Lessor shall record such notice, but a failure to record such notice shall not affect the validity of this Lease.

(c) The Term shall automatically be extended for the Extended Term (as defined below) upon the date when the Project begins commercial operation, which shall be defined as the date of the first commercial deliveries of electrical energy to the local utility grid (“**Commercial Operation Date**”) ; or (ii) the date when Lessor receives written notice from Lessee of Lessee’s election to extend the term of the Lease for the Extended Term (“**Extended Term Notice Date**”),

provided that the commencement of the Extended Term occurs prior to the expiration of the Construction Period. The Extended Term of this Lease ("**Extended Term**") is twenty five (25) years from the Commercial Operation Date or the Extended Term Notice Date, unless terminated earlier in accordance with the terms of this Lease. Lessee may record a notice of the Commercial Operation Date or the Extended Term Notice Date against Lessor's Property to give notice of the Construction Date, and upon the request of Lessor shall record such notice, but a failure to record such notice shall not affect the validity of this Lease.

(d) Lessee shall have the right, at its option, to further extend the Term for three (3) additional periods of five (5) years (each, a "**Renewal Term**"). To exercise an option to extend the term of this Lease for a Renewal Term, Lessee must deliver both a written extension notice to Lessor and an extension payment in the amount of Ten Dollars (\$10.00) per each acre within the Premises (prorated for any partial acre) prior to the expiration of the Extended Term or the applicable Renewal Term, as the case may be. Lessee must deliver the written notice and the extension payment in the amount and in the manner set forth above to exercise effectively its options to extend the term of this Lease for any Renewal Term. This Lease shall continue during each Renewal Term on the same terms and conditions applicable during the Extended Term, except as specifically provided herein. Lessee shall have no right to extend the term of this Lease beyond the last Renewal Term provided for in this Section 2.1(d) absent further mutual agreement. If Lessee fails to effectively exercise an option to renew the term hereof, this Lease shall terminate and Lessee shall have no further options or rights to renew or extend the Term hereof. Notwithstanding anything to the contrary contained herein, in no event shall the Term of this Lease, including the Development Period, Construction Period, Extended Term and any applicable Renewal Term exceed forty-seven (47) years in the aggregate.

Section 2.2 Termination of Lease

The occurrence of any of the following events shall terminate this Lease:

- (a) The expiration of this Lease as set forth in Section 2.1; or
- (b) The written agreement of both parties to terminate this Lease; or
- (c) An uncured material breach of this Lease by either party and the election of the non-defaulting party to terminate the Lease pursuant to Article VIII; or
- (d) At the option of Lessee, thirty (30) days after Lessee's execution and delivery of written notice of termination to Lessor (as to the entire Property, or any part thereof at Lessee's option), in Lessee's sole and absolute discretion; or
- (e) A condemnation of all or a portion of the Premises and the election of the Lessee to terminate the Lease pursuant to Article VII; or
- (f) Pursuant to applicable law.

Section 2.3 Part of a Larger Project

The parties acknowledge that the covenants, conditions, rights and restrictions in favor of Lessee pursuant to this Lease including, but not limited to, the easement described in Section 1.2, and Lessee's use of and benefit from those covenants, conditions, rights and restrictions, may constitute a portion of a larger solar energy project with which the Premises will share structural and transmission components, ingress and egress, utility access, and other support, all of which are specifically designed to be interrelated and integrated in operation and use for the full life of the Project.

ARTICLE III. Payments and Taxes

Section 3.1 Development Period Rent

Within sixty (60) days after the Effective Date, and on each anniversary of the Effective Date during the Development Period, Lessee shall pay Lessor the sum of Four Thousand Eight Hundred Dollars and No/100 (\$4,800.00) (the "**Development Rental Payment**") per year, as consideration for the Development Period. Lessee, at its sole and absolute discretion, shall have the right to terminate this Agreement at any time during the Development Period upon thirty (30) days written notice to Lessor.

Section 3.2 Annual Rent During Construction Period, Extended Term and Renewal Term

Within forty-five (45) days after the first day of the Construction Period, and by February 15th of each subsequent year of the Extended Term and any Renewal Term, Lessee shall pay Lessor the sum of Seven Hundred Fifty Dollars and No/100 (\$750.00) multiplied by the acreage of the Premises (prorated for any partial acres within the Premises) as rent for the Premises (the "**Annual Rent**"). The Annual Rent shall be increased on an annual basis for each year in the Extended Term and Renewal Term, if any, by one percent (1.0%), compounded annually. The Annual Rent payment for the first and last years of the Extended Term, if less than a full calendar year, shall be prorated based on the number of days remaining in such calendar year.

Section 3.3 Taxes, Assessments and Utilities

(a) Lessor shall pay, when due, all real property taxes and assessments levied against the Premises and all personal property taxes and assessments levied against any property and improvements owned by Lessor and located on the Premises. Subject to Section 3.3 (c), if Lessor shall fail to pay any such taxes or assessments when due, Lessee may, at its option, pay those taxes and assessments and any accrued interest and penalties, and deduct the amount of its payment from any Rent otherwise due to Lessor from Lessee.

(b) Lessee shall pay all personal property taxes and assessments levied against the Solar Facilities when due, including any such taxes based on electricity production. If the Premises experiences any increase in the amount of real property taxes assessed as a result of the installation of the Solar Facilities on the Premises, including any reclassification of the Premises, Lessee shall pay or reimburse Lessor an amount equal to the increase no later than ten (10) days prior to the date each year on which the applicable real estate taxes are due to be paid, provided that Lessor provides Lessee with copies of the applicable current and past

statements of real estate taxes payable for the Premises and any related information demonstrating the reasons for any increase in real estate taxes.

(c) Either party may contest the validity or amount of any levied taxes, assessments or other charges for which each is responsible under this Lease as long as such contest is pursued in good faith and with due diligence and the party contesting the tax, assessment or charge has paid the obligation in question or established adequate reserves to pay the obligation in the event of an adverse determination.

(d) Lessee shall pay for all water, electric, telecommunications and any other utility services used by the Solar Facilities or Lessee on the Premises.

Section 3.4 Severance of Lease Payments

Lessor acknowledges and agrees that it shall not be permitted to sever the payments under the Lease, and shall not be permitted to assign payments due to Lessor under the Lease to a third party without the consent of Lessee. Upon the transfer of an interest in the Premises to an heir, legal representative, successor or assign, the payments hereunder (or the proportionate share thereof) shall inure to the benefit of such party.

Section 3.5 Crop Damage and Compaction

(a) The parties anticipate and acknowledge that Lessor or Lessor's renters may suffer damage to crops, tile, fences, and other property or improvements on the Premises during Lessee's construction, installation and maintenance of Solar Facilities on the Premises. Lessee shall reimburse Lessor for any such damages within thirty (30) days after determining the extent of damage. Notwithstanding any provision to the contrary, Lessor acknowledges and agrees that it shall not be allowed to rent, lease, or otherwise allow crop tenants to grow crops on the Premises during a calendar year if, by December 1st prior to such calendar year when crop tenants are disallowed, Lessee provides Lessor with written notice stating that Lessee intends to construct the Project in the following year (the "Development Notice").

(b) Crop damages will be calculated by the following formula: $\text{Price} \times \text{Yield} \times \text{Percentage of Damage} \times \text{Acreage} = \text{Crop Damages}$. Prices for damaged or destroyed crops will be based on the average of the last previous March 1st and September 1st Chicago Board of Trade prices for that crop. Yield will be the average of the next previous two (2) years' yields of the same crop as the damaged crop, according to Lessor's records, as received from and certified by Lessor, for the smallest parcel of land that includes the damaged area. For purposes of the foregoing, "Lessor's records" shall include, but not be limited to, warehouse/elevator receipts, applications for crop insurance and scale tickets from grain cart or yield monitors on combines. If Lessor does not have yield records available, the Lessor will use FSA records for the county in which the Premises is located (or other commonly used yield information available for the area) for the smallest parcel of land which includes the damaged area. The parties hereto shall try in good faith to agree to the extent of damage and acreage affected. If the parties hereto cannot agree, they shall have the area measured and extent of damage assessed by an impartial party such as a crop insurance adjuster or extension agent.

(c) After such payment for any Crop Damages, Lessee shall not be responsible to pay

Lessor or Lessor's renters any loss of income, rent, business opportunities, profits or other losses arising out of Lessor's inability to grow crops or otherwise use the portion of the Premises occupied by Solar Facilities.

(d) Lessee will take all commercially reasonable steps to avoid damaging any tile lines on the Premises that may affect the operation of tile lines draining from adjacent property to a drainage outlet on the premises or through the premises. Within Thirty (30) days of determining any damage to tile lines, Lessee agrees to repair and/or replace underground tile lines on the Premises damaged during the construction or operation of the Project. Lessee shall retain a qualified local third-party tile repair contractor to undertake all tile repair work. Upon reasonable notice, Lessor shall be given the opportunity to inspect the repair, replacement or rerouting of tile prior to being covered with topsoil.

ARTICLE IV. Lessee's Covenants

Lessee covenants, represents and warrants to Lessor as follows:

Section 4.1 Mechanic's Liens

Lessee shall keep the Premises free and clear of all liens and claims of liens for labor, materials, services, supplies and equipment performed for or furnished to Lessee or, at the request of Lessee, any Solar Facility on the Premises in connection with Lessee's use of the Premises. Lessee may contest any such lien if Lessee provides Lessor with a bond or other reasonable security to protect Lessor's interest in the Premises against any such lien, in which case Lessee shall not be required to remove the lien during the period of the contested proceeding, but will be required to remove the lien prior to Lessor's interest in the Premises being forfeited. Lessee agrees to provide for ultimate removal before it affects Lessor's rights on the Premises.

Section 4.2 Permits and Laws

Lessee and its designees shall at all times comply with all federal, state and local laws, statutes, ordinances, rules, regulations, judgments and other valid orders of any governmental authority applicable with respect to Lessee's activities pursuant to this Lease and shall obtain all permits, licenses and orders required to conduct any and all such activities (collectively, "**Legal Requirements**"). Failure to comply with any such Legal Requirements shall be a default as set forth in Section 8.1. Lessee shall have the right, in its sole discretion, to contest by appropriate legal proceedings brought in the name of Lessee, the validity or applicability to the Premises, Solar Facilities, or any Other Approved Facilities of any Legal Requirement now or hereafter made or issued by any federal, state, county, local or other governmental agency or entity. Lessee shall not contest any Legal Requirements in the name of Lessor unless Lessor has specifically agreed to join the action. If Lessor agrees to join the action, Lessor shall cooperate in every reasonable way in such contest, provided Lessee reimburses Lessor for its reasonable and actual out-of-pocket expense directly incurred in connection with such cooperation, to the extent Lessee has approved such expense in advance.

Section 4.3 Lessee's Improvements

After the construction of the Solar Facilities, Lessee shall remove any construction debris and shall restore the portions of the Premises not occupied by the Solar Facilities to substantially the same condition that such portions of the Premises were in prior to the construction of the Solar Facilities. Lessee will install and maintain a fence surrounding the Solar Facilities (with the exception of any access roads, overhead and underground electrical transmission and communications lines, telecommunications equipment and relating improvements). All Solar Facilities constructed, installed or placed on the Premises by Lessee pursuant to this Lease shall be and remain the sole property of Lessee and, except as expressly provided in this Section 4.3, Lessor shall have no ownership or other interest in any Solar Facilities on the Premises.

All Solar Facilities constructed, installed or placed on the Premises by Lessee pursuant to this Lease may be moved, removed, replaced, repaired or refurbished by Lessee at any time. Lessee shall maintain Lessee's Solar Facilities in good condition and repair, ordinary wear and tear excepted. If Lessee fails to remove any of the Solar Facilities within twelve months from the date the Term expires or the Lease terminates, such Solar Facilities shall be considered abandoned by Lessee and Lessor may either: (i) remove the remaining Solar Facilities from the Premises and dispose of them in its sole discretion without notice or liability to Lessee; or (ii) consider the Solar Facilities abandoned, at which time the remaining Solar Facilities shall become the property of Lessor. If Lessee fails to remove any of the Solar Facilities as required, and Lessor elects to remove such Solar Facilities at Lessor's expense, Lessee shall reimburse Lessor for all reasonable out-of-pocket costs of removing those Solar Facilities, less any salvage value received by Lessor, within thirty days after receipt of an invoice from Lessor accompanied by reasonable supporting documentation.

On the ten (10) year anniversary of the Commercial Operation Date and for the remainder of the Term, Lessee shall provide either a surety bond or escrow funds (the "**Extended Term Security**") to secure Lessee's obligations under this Section 4.3, which Security shall be in the name of Lessor and/or the applicable governmental authority. Lessee shall provide Lessor written notice upon the establishment of such Extended Term Security, which notice shall identify the location and amount of the Extended Term Security. The amount of the Extended Term Security shall be in an amount equal to the greater of: (i) \$500.00 per megawatt ("**MW**"), which sum shall increase by \$500.00 per MW on each anniversary of the Commercial Operation Date thereafter (for example, the total minimum amount will be \$1,000.00 per MW on the 11th Anniversary and \$1,500.00 per MW on the 12th Anniversary); or (ii) the amount necessary to satisfy the requirements set forth by applicable governmental rules or the permits for the Solar Facilities. If Lessee does not remove the Solar Facilities within twelve (12) months after the expiration of the Term or earlier termination of the Lease, Lessor may draw from the Extended Term Security an amount sufficient to reimburse Lessor that amount required to reimburse Lessor for the difference between Lessor's out-of-pocket costs of removing the Solar Facilities, less the salvage value of the Solar Facilities.

Section 4.4 Insurance

Lessee shall obtain and maintain in force policies of insurance covering the Solar Facilities and Lessee's activities on the Premises at all times during the Term, including specifically

comprehensive general liability insurance with a minimum combined occurrence and annual limitation of one million dollars, for the period prior to commencement of construction of any Solar Facilities on the Premises other than meteorological measuring devices, and three million dollars, for the period commencing on the Construction Date. Such insurance coverage for the Solar Facilities and Premises may be provided as part of a blanket policy that covers other solar facilities or properties as well. Any such policies shall name Lessor as an additional insured and shall provide for 30 days prior written notice to Lessor of any cancellation or material change. Lessee shall provide Lessor with copies of certificates of insurance evidencing this coverage upon request by Lessor. Policies shall provide coverage for any costs of defense or related fees incurred by Lessor. Lessee shall also reimburse Lessor for any increase in Lessor's insurance premiums relating to the Premises, to the extent that such increase is directly caused by the installation of the Solar Facilities or Lessee's operations on the Premises.

Section 4.7 Hold Harmless.

Each party (the "**Indemnifying Party**") agrees to defend, indemnify and hold harmless the other party and the other party's officers, directors, employees, representatives, mortgagees and agents (collectively the "**Indemnified Party**") against any and all losses, damages, claims, expenses and liabilities for physical damage to property and for physical injury to any person, including, without limitation, reasonable attorneys' fees, to the extent resulting from or arising out of (i) any operations or activities of the Indemnifying Party on the Property (including, as to Lessor, any operations or activities conducted on the Property by any person or entity other than Lessee prior to the Effective Date) or (ii) any negligent or intentional act or omission on the part of the Indemnifying Party. This indemnification shall not apply to losses, damages, claims, expenses and liabilities to the extent caused by any negligent or intentional act or omission on the part of the Indemnified Party. This indemnification shall survive the termination of this Lease.

Section 4.8 Essential Services.

Except for any competing developers of solar energy projects, Lessee shall accommodate the reasonable development of essential services on the Property, including any electric transmission and distribution lines and associated facilities, telecommunications facilities, and rural water systems, provided that such services do not interfere with the Solar Facilities.

ARTICLE V. Lessor Covenants

Lessor covenants, represents and warrants to Lessee as follows:

Section 5.1 Title and Authority

Except to the extent otherwise stated in this Lease, Lessor is the sole owner of the Property in fee simple and each person or entity signing this Lease on behalf of Lessor has the full and unrestricted authority to execute and deliver this Lease and to grant the leaseholds, easements and other rights granted to Lessee herein. There are no encumbrances or liens against the Property except: (a) those currently of record in the county where the Property are located, or (b) those which are reflected in a title report for the Property provided to Lessee prior to execution of the

Lease. To the extent that any such encumbrances or other title defects could interfere with the development, construction or operation of the Project or otherwise interfere with the rights of Lessee under this Lease, Lessor shall, at Lessor's expense, promptly take such actions required to remove or otherwise cure any such encumbrances or defects. There are no farm or other tenancies affecting the Property except those disclosed by Lessor to Lessee in writing prior to or at the time of execution hereof. Any farm or other tenancies entered into after the date hereof shall be subject and subordinate to this Lease, and immediately terminable upon written notice to the tenant. When signed by Lessor, this Lease constitutes a valid and binding agreement enforceable against Lessor in accordance with its terms.

Section 5.2 Cooperation to Eliminate Lien Interference

Lessor shall cooperate with Lessee to obtain non-disturbance and subordination agreements, or such other necessary agreements, from any person or entity with a lien, encumbrance, mortgage, lease (including, but not limited to a crop lease) or other exception to Lessor's fee title to the Property to the extent necessary to eliminate any actual or potential interference by any such lienholder with any rights granted to Lessee under this Lease. Lessor shall also cooperate with Lessee to obtain and maintain any permits or approvals needed for the Solar Facilities at no cost or expense to Lessor. In connection with the issuance of such permits, and to the extent allowed by (and subject to) applicable law, Lessor hereby waives any and all setback requirements, including any setback requirements described in the zoning ordinance of the county in which the Property are located or in any governmental entitlement or permit hereafter issued to Lessee, with respect to the locations of any Solar Facilities to be installed or constructed on the Property or on adjacent properties that are a part of the Project. Lessor shall also provide Lessee with such further assurances and shall execute any estoppel certificates, consents to assignments, non-disturbance and subordination agreements, or additional documents that may be reasonably necessary for recording purposes or requested by Lessee or any of its lenders.

Section 5.3 Quiet Enjoyment

As long as Lessee is not in default of this Lease beyond any applicable cure period (or if no cure period is expressly set forth, a reasonable time), Lessee shall have the quiet use and enjoyment of the Premises in accordance with the terms of this Lease without any interference of any kind by Lessor or any person claiming through Lessor. Lessor and its activities on the Premises and any grant of rights Lessor makes to any other person shall be only as permitted under this Lease and shall not interfere with any of Lessee's rights or activities pursuant to this Lease, and Lessor shall not interfere or allow interference with any of Lessee's rights or activities pursuant to this Lease, and Lessor shall not interfere or allow interference with the direct sunlight over the Premises or otherwise engage in activities or allow any activities which might impede or decrease the output or efficiency of the Solar Facilities.

Section 5.4 Exclusivity

Lessee shall have the exclusive right to use the Premises for commercial solar energy purposes. For purposes of this Lease, "commercial solar energy purposes" means converting solar

energy into electrical energy, and collecting and transmitting the electrical energy so converted, together with any and all activities related thereto.

Section 5.5 Operation of the Solar Facilities

Lessor acknowledges and understands that the Solar Facilities to be located on the Premises may impact the view on the Property, and will cause or emit electromagnetic and frequency interference. Lessor covenants and agrees that the Lessor shall not assert that the Solar Facilities constitute a nuisance.

Section 5.6 Maintenance of the Premises

Lessor will maintain the Premises to the extent not occupied by Solar Facilities. Lessee shall be responsible for maintaining the Premises which are occupied by the Solar Facilities as set forth in the Site Plan. Lessee will maintain any roads or trails constructed by Lessee, and Lessor will maintain all other roads or trails on the Premises.

Section 5.7 Hazardous Materials

Lessor shall not use, store, dispose of or release on the Premises or cause or permit to exist or be used, stored, disposed of or released on the Premises as a result of Lessor's operations, any substance which is defined as a "hazardous substance", "hazardous material", or "solid waste" in any federal, state or local law, statute or ordinance, except in such quantities as may be required in its normal business operations and is in full compliance with all applicable laws. Lessor represents to Lessee that Lessor has no knowledge of any condition on the Premises that is in violation of such laws, statutes or ordinances, and that it will indemnify and hold Lessee harmless from and against any claims related to any pre-existing conditions affecting the Premises.

The Lessor hereby determines that, when the Lessee takes an action that is contemplated by this Lease, including the acquisition of a leasehold and easement interests contemplated herein and the installation of the Solar Facilities, such actions will not associate the Lessee with any existing release or threatened release of existing contamination on the Premises or Easement Area as of the Effective Date, so long as the Lessee takes such actions in accordance with the terms and conditions of this Lease.

ARTICLE VI. Assignment; Encumbrance of Lease

Section 6.1 Right to Encumber

(a) **Lessee Right to Mortgage Leasehold Interest.** Lessee may at any time mortgage all or any part of its interest in the Lease and rights under this Lease and/or enter into a collateral assignment of all or any part of its interest in the Lease or rights under this Lease to any entity ("**Lender**"). No Lender shall have any obligations under this Lease until such time as it exercises its rights to acquire Lessee's interests subject to the lien of Lender's mortgage by foreclosure or otherwise assumes the obligations of Lessee directly.

(b) **Notice.** Lessee shall notify Lessor of the identity and notice address for any Lender. Lessor and Lessee agree that, once all or any part of Lessee's interests in the Lease are mortgaged or assigned to a Lender, they will not modify or terminate this Lease without the prior written consent of the Lender.

(c) **Lender Right to Cure Lessee Default.** Lessor agrees that any Lender shall have the right to make any payment and to do any other act or thing required to be performed by Lessee under this Lease, and any such payment, act or thing performed by Lender shall be effective to prevent an Event of Default by Lessee and any forfeiture of any of Lessee's rights under this Lease as if done by Lessee itself.

(d) **Notice from Lessor to Lender in Case of Lessee Default.** During the time all or any part of Lessee's interests in this Lease are mortgaged or assigned to any Lender, if Lessee defaults under any of its obligations and Lessor is required to give Lessee notice of the default Lessor shall also be required to give Lender notice of the default. If Lessor becomes entitled to terminate this Lease due to an uncured default by Lessee, Lessor will not terminate this Lease unless it has first given written notice of the uncured default and of its intent to terminate this Lease to the Lender and has given the Lender at least thirty (30) days from receipt of such notice to cure the default to prevent termination of this Lease. If within such thirty (30) day period the Lender notifies the Lessor that it must foreclose on Lessee's interest or otherwise take possession of Lessee's interest under this Lease in order to cure the default, Lessor shall not terminate this Lease and shall permit the Lender a reasonable period of time necessary for the Lender, with the exercise of due diligence, to foreclose or acquire Lessee's interest under this Lease and to perform or cause to be performed all of the covenants and agreements to be performed and observed by Lessee. The time within which Lender must foreclose or acquire Lessee's interest shall be extended to the extent Lender is prohibited by an order or injunction issued by a court or the operation of any bankruptcy or insolvency law from commencing or prosecuting the necessary foreclosure or acquisition.

(e) **Recognition of Lender as Successor.** The acquisition of all or any part of Lessee's interests in the Lease by any Lender through foreclosure or other judicial or nonjudicial proceedings in the nature of foreclosure, or by any conveyance in lieu of foreclosure, shall not require the consent of Lessor nor constitute an Event of Default or default of this Lease by Lessee, and upon the completion of the acquisition or conveyance Lessor shall acknowledge and recognize Lender as Lessee's proper successor under this Lease upon Lender's cure of any existing Lessee defaults and assumption of the obligations of Lessee under this Lease prospectively.

(f) **New Lease.** If this Lease is rejected by a trustee or a debtor-in-possession in any bankruptcy or insolvency proceeding Lessor may agree, upon request by any Lender within sixty (60) days after the rejection or termination, to execute and deliver to Lessee or Lender a new lease for the Premises which (i) shall be effective as of the date of the rejection or termination of this Lease, (ii) shall be for a term equal to the remainder of the Term before giving effect to such rejection or termination, and (iii) shall contain the same terms, covenants, agreements, provisions, conditions and limitations as are contained in this Lease (except for any obligations or requirements which have been fulfilled by Lessee or Lender prior to rejection or termination). Prior to the execution and delivery of any such new lease Lessee, or Lender, shall (i) pay Lessor

any amounts which are due Lessor from Lessee, (ii) pay Lessor any and all amounts which would have been due under this Lease but for the rejection or termination from the date of the rejection or termination to the date of the new lease and (iii) agree in writing to perform or cause to be performed all of the other covenants and agreements to be performed by Lessee under this Lease to the extent Lessee failed to perform them prior to the execution and delivery of the new lease.

Section 6.2 Assignment of Lessee's Interest

Lessee and any successor or assign of Lessee shall at all times have the right, without need for Lessor's consent, to do any of the following with respect to all or any portion of the Premises for solar energy purposes: grant co-leases, separate leases, subleases, easements, licenses or similar rights (however denominated) to one or more third parties; or sell, convey, lease, assign, mortgage, encumber or transfer to one or more third parties or to any affiliate of Lessee's this Lease, or any right or interest in this Lease, or any or all right or interest of Lessee in the Premises or in any or all of the Solar Facilities that Lessee or any other party may now or hereafter install on the Premises provided that (i) any such assignment, transfer or conveyance shall not be for a period beyond the Term of this Lease; (ii) the assignee or transferee shall be subject to all of the obligations, covenants and conditions applicable to the Lessee; and (iii) Lessee shall not be relieved from liability for any of its obligations under this Lease by virtue of the assignment or conveyance unless Lessee assigns or conveys all of its interests under the Lease to the assignee or transferee, in which event Lessee shall have no continuing liability. Upon any assignment or transfer of any or all of Lessee's interests hereunder, Lessee shall provide notice of such assignment or transfer to Lessor, together with contact information for the assignee or transferee (including name, address and phone number), but failure to provide such contact information shall not be considered a default hereunder.

Section 6.3 Continuing Nature of Obligations

(a) **Benefits are "In Gross".** The easements and related rights granted by Lessor in this Lease to Lessee are easements "in gross", which means, among other things, that they are interests personal to and for the benefit of Lessee, and its successors and assigns, as owner of the rights created by the easements granted herein. Such easements and other rights granted Lessee by Lessor in this Lease are independent of any lands or estates or interest in lands, there is no other real property benefiting from the easements and related rights and, as between the Premises and other tracts of property on which Lessee may locate Solar Facilities, no tract is considered dominant or servient as to the other.

(b) **Burdens Run With and Against the Land.** The burdens of the easements and related rights granted to Lessee in this Lease shall run with and against the Property and shall be a charge and burden on the Property and shall be binding upon and against Lessor and its successors, assigns, permittees, licensees, lessees, employees and agents. The Lease and the easements and related rights granted herein shall inure to the benefit of Lessee and its successors, assigns, permittees, licensees and Project lessees.

ARTICLE VII. Condemnation

Section 7.1 Effect of Condemnation

If eminent domain proceedings are commenced against all or any portion of the Premises, and the taking and proposed use of such property would prevent or adversely affect Lessee's construction, installation or operation of Solar Facilities on the Premises, at Lessee's option, the parties shall either amend this Lease to reflect any necessary relocation of the Solar Facilities which will preserve the value and benefit of the Lease to Lessee, together with any corresponding payments, or this Lease shall terminate in which event neither party shall have any further obligations.

Section 7.2 Condemnation Proceeds

All payments made by a condemnor on account of a taking by eminent domain shall be the property of the Lessor, except that Lessee shall be entitled to any award or amount paid for the reasonable costs of removing or relocating any of the Solar Facilities or the loss of any such Solar Facilities or the use of the Premises pursuant to the Lease. Lessee shall have the right to participate in any condemnation proceedings to this extent. No termination of this Lease under Section 7.1 shall affect Lessee's right to receive any award to which Lessee is entitled under this Section 7.2.

ARTICLE VIII. Default/Termination

Section 8.1 Events of Default

Each of the following shall constitute a "**Event of Default**" that shall permit the non-defaulting party to terminate this Lease or pursue other remedies available at law or equity, subject to the terms and conditions of Article VI.

- (i) any failure by Lessee to pay any undisputed amounts due under Article III if the failure to pay continues for thirty (30) days after written notice from Lessor;
- (ii) any other breach of this Lease by either party which continues for thirty (30) days after written notice of default from the nondefaulting party or, if the cure will take longer than thirty (30) days, the length of time necessary to effect cure as long as the defaulting party is making diligent efforts to cure during that time, but not more than ninety (90) days.

Section 8.2 Surrender

Upon the termination or expiration of this Lease, Lessee shall peaceably surrender the Premises to Lessor and remove all Solar Facilities from the Premises at Lessee's expense within twelve (12) months after the date the Lease expires or is terminated as required pursuant to Section 4.3 of this Lease. Lessee shall pay Annual Rent to Lessor for the period until the Solar Facilities are removed from the Premises, which obligation shall survive the expiration or earlier termination hereof.

Section 8.3 Damages

Lessor acknowledges and agrees that should Lessor breach any of its obligations hereunder or otherwise fail to permit Lessee to exercise any of the rights and privileges granted herein, damages would be difficult to calculate and money damages would not be sufficient to compensate Lessee for such breach, and therefore, Lessor agrees that Lessee shall have the right to seek specific enforcement of this Lease. In that event, Lessor agrees that Lessee has no adequate remedy at law, and that an order of specific performance may be granted in favor of Lessee.

ARTICLE IX. Miscellaneous

Section 9.1 Notice

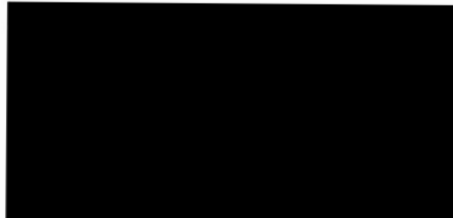
Notices, consents or other documents required or permitted by this Lease must be given by personal delivery, reputable overnight courier or certified U.S. mail postage prepaid and shall be sent to the respective parties as follows (or at such other address as either party may designate upon written notice to the other party in the manner provided in this paragraph) and shall be deemed delivered upon actual delivery or refusal, if personally delivered, upon the date of actual delivery or refusal shown on the courier's delivery receipt if sent by overnight courier and on the fourth business day after deposit in the U.S. mail if sent by certified mail:

To Lessor:



P:

To Lessee:



With a copy to:



Section 9.2 Relationship of the Parties; No Third Party Beneficiaries

The duties, obligations and liabilities of each of the parties are intended to be several and not joint or collective. This Lease shall not be interpreted or construed to create an association, joint venture, fiduciary relationship or partnership between Lessor and Lessee or to impose any partnership obligation or liability or any trust or agency obligation or relationship upon either party. Lessor and Lessee shall not have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act or be an agent or representative of, or to otherwise bind, the other party. Except for the rights of Lenders set forth above, no provision of this Lease is intended to nor shall it in any way inure to the benefit of any third party so as to constitute any such

person a third party beneficiary under this Lease, or of any one or more of the terms of this Lease, or otherwise give rise to any cause of action in any person not a party to this Lease.

Section 9.3 Entire Agreement

It is mutually understood and agreed that this Lease constitutes the entire agreement between Lessor and Lessee and supersedes any and all prior oral or written understandings, representations or statements, and that no understandings, representatives or statements, verbal or written, have been made which modify, amend, qualify or affect the terms of this Lease. This Lease may not be amended except in a writing executed by both parties.

Section 9.4 Legal Matters.

(a) This Lease shall be interpreted, construed and enforced in accordance with and governed by the internal laws of the State of New York without reference to the principles of conflicts of laws. Each party hereby irrevocably consents to the exclusive jurisdiction of the courts of the County of [REDACTED] and County of [REDACTED] and State of New York and of the federal courts located in the Northern District of New York for all purposes in connection with any action, suit or proceeding which arises out of or relates to this Lease. To the fullest extent it may effectively do so under applicable law, each party hereby irrevocably waives and agrees not to assert, by way of motion, as a defense or otherwise, any claim that it is not subject to the jurisdiction of any such court, any objection which it may now or hereafter have to the laying of the venue of any such action, suit or proceeding brought in any such court and any claim that any such action, suit or proceeding brought in any such court has been brought in an inconvenient forum.

(b) Notwithstanding anything to the contrary in this Lease, neither party shall be entitled to, and each of Lessor and Lessee hereby waives any and all rights to recover, consequential, incidental, and punitive or exemplary damages, however arising, whether in contract, in tort, or otherwise, under or with respect to any action taken in connection with this Lease.

(c) EACH OF THE PARTIES KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES THE RIGHT TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION BASED ON THIS LEASE, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS LEASE AND ANY AGREEMENT CONTEMPLATED TO BE EXECUTED IN CONJUNCTION HERewith, OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER VERBAL OR WRITTEN) OR ACTIONS OF ANY PARTY HERETO. EACH OF THE PARTIES TO THIS LEASE WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT OR HAS NOT BEEN WAIVED. THIS PROVISION IS A MATERIAL INDUCEMENT TO EACH OF THE PARTIES FOR ENTERING INTO THIS LEASE.

Section 9.5 Cooperation

Each of the parties, without further consideration, agrees to execute and deliver such additional documents and take such action as may be reasonably necessary to carry out the purposes and intent of this Lease and to fulfill the obligations of the respective parties. If, at any time during the Term, Lessee deems it to be necessary or desirable to meet legal or regulatory requirements, Lessee may request that Lessor re-execute a new lease substantially in the form of this Lease with a term equal to the Term remaining as of the date of execution of the new lease, and Lessor shall execute and enter into the new lease with Lessee or its designee. In the event of inaccuracies or insufficiencies in the legal description of the Property, this Lease shall be amended to correct the inaccuracies or insufficiencies. Furthermore, Lessor agrees to negotiate in good faith to grant an easement to a utility over the Premises if needed in connection with the transmission of electricity generated by the Project.

Section 9.6 Waiver

Neither party shall be deemed to have waived any provision of this Lease or any remedy available to it unless such waiver is in writing and signed by the party against whom the waiver would operate. Any waiver at any time by either party of its rights with respect to any rights arising in connection with this Lease shall not be deemed a waiver with respect to any subsequent or other matter. In the event that Lessee makes any overpayments to Lessor hereunder, Lessee shall offset the amount of such overpayments to Lessor against future payments due to Lessor from Lessee hereunder.

Section 9.7 Force Majeure

Neither Lessor nor Lessee shall be liable to each other, or be permitted to terminate this Lease, for any failure to perform an obligation of this Lease to the extent such performance is prevented by a Force Majeure, which shall mean an event beyond the control of the party affected and which, by exercise of due diligence and foresight, could not reasonably have been avoided. Unanticipated Project costs do not constitute a Force Majeure event.

Section 9.8 Confidentiality

The parties acknowledge that prior to the execution of this Lease, neither party may require the other party to maintain the confidentiality of any negotiations or the terms of the Agreement. After the Effective Date, however, both parties shall maintain in confidence, for the benefit of the other party, all information pertaining to the financial terms of or payments under this Agreement. Neither party will use such information for its own benefit, publish or otherwise disclose it to others, or permit its use by others for their benefit or to the detriment of the other party. Notwithstanding the foregoing, each party may disclose such information to such party's lenders, attorneys, accountants and other advisors; any prospective purchaser or lessee of such party's interests in Premises; or pursuant to lawful process, subpoena or court order requiring such disclosure, provided the party making such disclosure advises the party receiving the information of the confidentiality of the information. The provisions of this Section 10.8 shall survive the termination or expiration of this Lease.

Section 9.9 Tax Credits

If under Legal Requirements the holder of a leasehold interest in the nature of that held by Lessee under this Lease becomes ineligible for any tax credit, benefit or incentive for alternative energy expenditure established by any local, state or federal governmental authority, then, at Lessee and Lessor's option, Lessor and Lessee may amend this Lease or replace it with a different instrument so as to convert Lessee's interest in the Premises to a substantially similar interest that makes Lessee eligible for such tax credit, benefit or incentive.

Section 9.10 Severability

Each provision hereof shall be valid and shall be enforceable to the extent not prohibited by law. If any provision hereof or the application thereof to any person or circumstance shall to any extent be invalid or unenforceable, the remaining provisions hereof, or the application of such provision to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby.

Section 9.11 Counterparts

This Lease may be executed in two or more counterparts and by different parties on separate counterparts, all of which shall be considered one and the same agreement and each of which shall be deemed an original.

Section 9.12 Memorandum of Lease

Lessor and Lessee shall execute in recordable form and Lessee shall have the right to record a memorandum of this Lease in a form provided by Lessee. Lessor hereby consents to the recordation of the interest of an assignee in the Premises. Upon the termination of the Lease, at the request of Lessor, Lessee agrees to provide a recordable acknowledgement of such termination to Lessor.

Section 9.13 Relationship of Parties

The duties, obligations and liabilities of each of the parties are intended to be several and not joint or collective. This Lease shall not be interpreted or construed to create an association, joint venture, fiduciary relationship or partnership between Lessor and Lessee or to impose any partnership obligation or liability or any trust or agency obligation or relationship upon either party. Lessor and Lessee shall not have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act or be an agent or representative of, or to otherwise bind, the other party.

Section 9.14 Multiple Owners

Notwithstanding anything to the contrary in this Lease or elsewhere, any obligation under this Lease for Lessee to pay Lessor any amount will be completely and unconditionally satisfied by payment of such amount by Lessee to the party named for Lessor in Section 9.1 at the address for such party given in Section 9.1, or such other single address designated by not less than thirty (30)

days' prior written notice to Lessee signed by all parties comprising Lessor. At Lessee's election such payment may be by joint check or checks payable to the Lessor parties known to Lessee. The parties comprising Lessor shall be solely responsible to notify Lessee in writing of any change in ownership of the Property or any portion thereof. Each of the parties comprising Lessor hereby irrevocably directs and authorizes Lessee to make all payments payable to Lessor under this Lease and to provide all notices to Lessor under this Lease directly to the party named in Section 9.1 as agent for all parties comprising Lessor, or to such other single person that all parties comprising Lessor shall direct by written notice to Lessee. The parties comprising Lessor shall be solely responsible for distributing their respective shares of such payments between themselves. The parties comprising Lessor shall resolve any dispute they might have between themselves under this Lease or any other agreement regarding any amount paid or payable to Lessor under this Lease or the performance of any obligation owed to Lessor under this Lease and shall not join Lessee in any such dispute or interfere with, delay, limit or otherwise adversely affect any of the rights or remedies of Lessee under this Lease in any way; provided, this will not limit the rights of Lessor under this Lease to enforce the obligations of Lessee under this Lease and so long as all parties comprising Lessor agree on pursuing such right or remedy and so notify Lessee in writing.

IN WITNESS WHEREOF, the undersigned have caused this instrument to be executed as of the Effective Date.

The remainder of this page is intentionally blank.

LESSEE SIGNATURE PAGE

LESSEE



the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public

LESSOR SIGNATURE PAGE

[REDACTED]

By: _____

Name: _____

Its: _____

By: _____

Name: _____

Its: _____

STATE OF NEW YORK

COUNTY OF _____

On the ____ day of _____ in the year 2020 before me personally came _____ to me known, who, being by me duly sworn, did depose and say that he/she reside(s) in _____ (if the place of residence is in a city, include the street and street number, if any, thereof); that he/she is the _____ of _____ the corporation described in and which executed the above instrument; and that he/she signed his/her name thereto by authority of the board of directors of said corporation.

Notary Public
Printed Name: _____
My Commission Expires: _____

STATE OF NEW YORK

COUNTY OF _____

On the _____ day of _____ in the year 2020 before me personally came
_____ to me known, who, being by me duly sworn, did
depose and say that he/she reside(s) in _____ (if the place of
residence is in a city, include the street and street number, if any, thereof); that he/she is the
_____ of _____
_____, the corporation described in and which executed the above instrument; and that he/she
signed his/her name thereto by authority of the board of directors of said corporation.

Notary Public

Printed Name: _____

My Commission Expires: _____

Appendix G: Example decommissioning agreement

DECOMMISSIONING BOND

Bond No.: 9324760

KNOW ALL MEN BY THESE PRESENTS, THAT WE OYA Blanchard Road LLC (Hereinafter called Principal), as Principal and Fidelity and Deposit Company of Maryland, a corporation duly organized and existing under and by virtue of the laws of the State of Maryland (hereinafter called "Surety") as Surety, are held and firmly bound unto Town of Orleans (Hereinafter called "Obligee"), as Obligee, in the penal sum of Two Hundred Forty Seven Thousand Two Hundred Fifty and 00/100 (\$247,250.00) good and lawful money of the United States of America, to be paid to the Obligee, for the payment of which, well and truly to be made, we bind ourselves, our heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has been granted approval by the Town of Orleans for a Special Use Permit for Blanchard Road Community Solar project a 5.0 MW ground mount tracker based solar project in the Town of Orleans, NY, and

WHEREAS, as a condition of said approval, the Principal is required to file security to cover the cost of the removal of solar equipment, the management of excess materials and waste, and the restoration of Project Location to allow for the future use of the land associated with the Blanchard Road Community Solar Project and pursuant to NY Town Law and the Town of Orleans Zoning Ordinance Article 7.

NOW, THEREFORE THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall comply with the conditions of the Bond as referenced above, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, HOWEVER, THAT THIS BOND IS EXECUTED BY THE PRINCIPAL AND SURETY AND ACCEPTED BY THE OBLIGEE SUBJECT TO THE FOLLOWING EXPRESS CONDITIONS:

1. The term of this Bond is for 20 year(s) beginning on July 19, 2019, unless released by the Obligee prior thereto.
2. The liability of the Surety shall not be discharged by any payment or succession of payments under this Bond, unless and until such payment shall amount in the aggregate to the penal sum of the Bond, but in no event exceed the penal sum of the Bond regardless of the number of extensions or years it may be in effect.
3. That in the case of default of the Principal, the Obligee will give written notice to the Surety within thirty (30) days thereafter.
4. No right of action shall accrue under this Bond to or for the use or benefit of anyone other than the named Obligee or its successors or assigns. No assignment by the Principal shall be effective without the written consent of the Surety.
5. During the term of this Bond, the Surety shall notify both the Obligee and the Principal by certified mail 120 days before any cancellation of this Bond. If the Principal does not extend the effective date of this Bond or establish alternate financial assurance within 90 days after receipt of a cancellation notice by the Surety, the Obligee may draw on this Bond.
6. All suits, actions on this Bond must be brought within sixty (60) days of the termination of the Permit or Bond, whichever shall occur first.
7. If any conflict or inconsistency exists between the Surety's obligations as described in the Bond and as described in the underlying Permit, then the terms of the Bond shall prevail.
8. The Surety's liability under this Bond shall not extend in any manner nor will the Surety be responsible to pay any sums due related to hazardous waste clean-up, wetlands mitigation, remediation actions or removal or responsibility for any of these pollution risks whatsoever, unless such matters are a direct result of Principal's actions and required as a result of the conditions set forth in the Permit or for tort liability.

9. No modification of the Permit guaranteed by this Bond shall be binding on the Surety or covered by this Bond without the written consent of the Surety.

IN WITNESS WHEREOF, said Principal and Surety have caused these presents to be executed in their names and by their seals to be hereunder affixed on this 9th day of July, 2019.

ATTEST



ATTEST

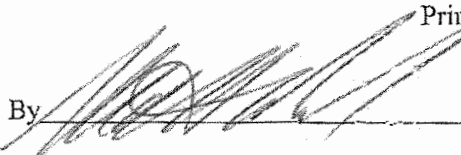


Sara Owens

OYA Blanchard Road LLC

Principal

By



Fidelity and Deposit Company of Maryland

Surety

By



Wayne G. McVaugh, Attorney-in-Fact

The above terms and conditions of this Bond have been reviewed and accepted by _____, the Obligee.

Acknowledged and Accepted:

By: _____

Printed Name: _____

Title: _____

Date: _____

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**


KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by **Robert D. Murray, Vice President**, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Wayne G. MCVAUGH, Elizabeth MARRERO, Patricia A. RAMBO, Sara OWENS, Kimberly G. SHERROD, Joanne C. WAGNER, Vicki JOHNSTON, Cathy H. HO, George GIONIS, Lori SHELTON, Jaquanda MARTIN and Kaitlyn MALKOWSKI** all of Philadelphia, Pennsylvania, **EACH**, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

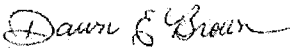
The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 15th day of May, A.D. 2019.



ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND


By: **Robert D. Murray**
Vice President



By: **Dawn E. Brown**
Secretary

**State of Maryland
County of Baltimore**

On this 15th day of May, A.D. 2019, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Robert D. Murray, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.




Constance A. Dunn, Notary Public
My Commission Expires: July 9, 2019

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereto subscribed my name and affixed the corporate seals of the said Companies,
this 9th day of July, 2019.



Brian M. Hodges

Brian M. Hodges, Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
www.reportsfclaims@zurichna.com
800-626-4577

Appendix H: Sample agreement for road use, repair, and improvements

AGREEMENT FOR ROAD USE, REPAIR AND IMPROVEMENTS

This AGREEMENT FOR ROAD USE, REPAIR AND IMPROVEMENTS (this "Agreement") is made and entered into this ____ day of _____, 2019 by and among the TOWN OF _____, a municipal corporation with offices at _____), the COUNTY OF JEFFERSON, a body corporate and politic under the laws of the State of New York with an office at 175 Arsenal Street, Watertown, New York (the "COUNTY") and OYA Solar, NY LP, a New York Limited Partnership with offices at _____, New York _____ ("OYA or "COMPANY").

RECITALS

1. The Company has been developing a solar-powered electric generating facility located in the _____ Orleans Jefferson County, New York (the PROJECT").
2. The PROJECT has a planned nameplate capacity of up to approximately 20 MW (15 MW in Orleans and 5 MW in the _____ (the "Project") and is owned by OYA, LLC a limited liability company currently owned by OYA.
3. The PROJECT advances the County's and Town's desire for environmentally sound production of electrical power.
4. The Town is responsible for the maintenance of certain roads and highways within Jefferson County.
5. In connection with the development, construction, operation and maintenance of the Project, it will be necessary for OYA and its contractors and subcontractors or designees to:
 - (i) transport heavy equipment and materials over the certain roads and highways located in each of the Town and County (the "Designated Roads"), which may in certain cases be in excess of the design limits of the Designated Roads;
 - (ii) transport certain locally sourced materials, such as concrete and gravel, on such Designated Roads;
 - (iii) widen certain Designated Roads and make certain modifications and improvements (both temporary and permanent) to such Designated Roads (including to certain culverts, bridges, road shoulders and other related fixtures) to permit such equipment and materials to pass; and
 - (iv) place certain electrical cables for the Project adjacent to, under or across certain roads for the purposes of carrying electrical current from the Project to the point of interconnection substation on _____ in the Town of _____.
6. The Town, the County and OYA wish to enter into an agreement for the use,

repair and improvement of the Designated Roads by OYA, all in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of mutual promises and covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

ARTICLE I USE OF DESIGNATED ROADS BY OYA

Section 1.1 Use of Designated Roads by OYA.

In connection with the development, construction, operation and maintenance of the Project, the Town and County hereby acknowledges and agree that OYA, its contractors and subcontractors and each of their respective agents, employees, representatives, and permitted assigns (collectively, the "OYA Parties") may use the roads and highways located in the Town and County identified on Appendix A hereto (the "Designated Roads"). Except in exceptional circumstances, concrete or other aggregate material trucks are limited to use from 6:00 AM to 8:00 PM, seven days a week ("Period of Use"). The Designated Roads may be used by OYA and the OYA Parties only in connection with the development, construction, operation, and maintenance of the Project, including the transportation of heavy equipment and materials to and from the Project. The Parties understand that deviations from the Project schedule may cause monetary and other harm to OYA. Accordingly, the Town agree to use best efforts to accommodate the use of the Designated Roads by OYA and the OYA Parties outside the Period of Use during construction. In addition to identifying the Designated Roads that will be used by OYA, Appendix A identifies the routes over the Designated Roads that will be used for:

- (i) transportation and delivery of wind turbine equipment and components and other materials and equipment to be used in connection with the Project;
- (ii) truck transportation leaving the Project site following delivery of equipment and materials; and
- (iii) transportation and delivery of locally sourced materials, including concrete and gravel (provided, however, that in the event the materials contemplated by the Parties in the development of the routes in Appendix A are not reasonably available, the Parties shall cooperate in good faith to amend the routes so as to allow for the alternate sourcing of those materials).

Subject to the terms of the foregoing and the other terms of this Agreement, the Parties agree that, to the extent OYA's requirements for the Designated Roads change as a result of modifications to OYA's haul routes, the Parties shall substitute such other roads for the Designated Roads as OYA reasonably requests. OYA shall provide the Town Highway Superintendent reasonable notice that it anticipates the use of substitute roads. Substitute roads may only be used on consent of the Town Highway Superintendent and such consent shall not be unreasonably withheld. In the event that the Town Highway Superintendent does not respond within three (3) business days of a request to use a substitute road, the Town Highway

Superintendent shall be deemed to have agreed to such substitute road being used. The Parties also agree that the restrictions in this Agreement pertaining to Designated Roads and Period of Use are restricted to concrete or other aggregate material trucks and do not apply to usage by passenger vehicles, light duty trucks or other vehicles that are properly licensed for use on public roadways in the State of New York.

Section 1.2 Construction Period Meetings. Beginning with commencement of construction of the Project, OYA and a representative from the Town and County (each, a "Designee" and collectively, the "Designees") shall meet on a weekly basis to discuss the expected use of the Designated Roads in the next succeeding week, including the construction schedule and the haul routes to be used. The Designees shall have authority to act on behalf of the Town and County, including the right to allow use of the Designated Roads outside the Period of Use and approve use of substitute roads. To the extent necessary, the Designees and OYA may invite certain landowners to attend the weekly meetings if their property is near or adjacent to the areas of use. Within ten (10) days after the execution of this Agreement by the Parties, the Town and County shall provide the names and contact information for each of its respective Designees. It is OYA's sole responsibility and obligation to inform the OYA Parties of all obligations, restrictions and liabilities contained within this Agreement and specifically that, without limiting any other rights to use Town and County roads and highways, the OYA Parties are permitted the limited right to use the Town and County roads and highways as set forth herein or applicable law.

Section 1.3 Additional Conditions of Use. The use of Designated Roads by OYA and the OYA Parties is subject to the following conditions:

- a) In the event of an exceptional circumstance and OYA and the OYA Parties determine it is necessary for the Project to use the Designated Roads outside the Period of Use, then OYA or, if applicable, the OYA Parties shall seek approval of the Designees, describing in detail such use and the reasons therefore. The Designees will take into account weather conditions and the conditions of the roads in making their determination to grant permission for use of the Designated Roads outside of the Period of Use under this Section 1.3, which permission shall not be unreasonably withheld. In the event that the Designees fail to respond within five (5) business days, the Designees shall be deemed to have agreed to such use.
- b) In the event OYA and the OYA Parties determine it is necessary for the Project to use roads and highways of the Town and County not identified on Appendix A as Designated Roads, then OYA or, if applicable, the OYA Parties shall notify the Designees, describing in detail such use and the reasons therefore. OYA shall provide the Designee reasonable notice that it anticipates the use of substitute roads. Substitute roads may only be used on consent of the Designees and such consent shall not be unreasonably withheld. In the event that the Designees do not respond within three (3) business days of a request to use a substitute road, the Designees shall be deemed to have agreed to such substitute road being used.

- c) Once construction begins on the Project, the Designee shall be entitled, at any time, to notify OYA and the OYA Parties that use of the Designated Roads may result in excessive damage to the Designated Roads due to weather conditions. OYA shall work with the Designee to develop a plan to mitigate or prevent the effect of such weather conditions. If the Parties are able to develop a plan to mitigate or prevent such damage, then OYA and the OYA Parties may continue to use such roads provided such mitigation is implemented. If the Parties are unable to develop such a plan, OYA and the OYA Parties may propose an alternate route to the Project site for approval by the Designees of the Town (such approval not to be unreasonably withheld).

Section 1.4 Surveys of Designated Roads. Prior to the commencement of construction at the Project site, the Town, the County and OYA shall select a third party to survey the Designated Roads to document the conditions of such roads prior to their use ("Initial Survey"). The Initial Survey shall include for each road or road section: (i) Town specifications applicable to the construction of the existing road; (ii) the period of time since the road was constructed or last maintained; (iii) an assessment of the condition of the road based on visual inspection and any information available through road testing. A scope of the road testing work is attached to this Agreement as Appendix G. The Initial Survey shall also include a survey of the roads and highways within the boundaries of the Town and County anticipated to be used by OYA and the OYA Parties as alternate routes from time to time (the "Non-Project Roads"). The third-party surveyor shall take photographs of or videotape the Designated Roads and Non-Project Roads, which photographs or video shall be accompanied by a written summary of findings regarding the condition of the Designated Roads and Non-Project Roads (the "Road Report"). Such Initial Survey, Road Report and any subsequent surveys or road reports shall be completed to the reasonable satisfaction of the Designees. Copies of the photographs or video and the Road Report shall be provided to the Designees and OYA. Within fourteen (14) days from the execution of this Agreement, the Town and County agree to provide OYA a list of locations whereby the Town and County have identified that core samples are required to fully delineate the conditions of the roads. The parties agree to negotiate in good faith and with reasonable efforts to identify a final list of road coring locations which shall be added to this Agreement as Appendix E. The results of these core samples will be incorporated into the Road Report. The costs of the Initial Survey and Road Report will be borne by OYA. OYA shall request the third party surveyor to conduct an additional survey following completion of construction of the Project to determine the then current condition of the Designated Roads and Non-Project Roads. Additional surveys shall only be conducted in the event the Parties mutually agree and the additional survey costs are borne by OYA. OYA agrees that the Initial Survey shall include an assessment of the haul routes identified in Appendix A for rutting conditions and potential for rutting. The post construction road inspection shall assess rutting for the locations identified.

Section 1.5 Trash Removal: Unnecessary Materials and Equipment. Throughout the term of this Agreement, OYA shall be responsible for keeping, at its cost, the Designated Roads and Non-Project Roads clean and free from rubbish and debris resulting from OYA's use of the Designated Roads and Non-Project Roads. Materials and equipment of OYA or the OYA

Parties, if any, shall be removed from the Designated Roads and Non- Project Roads as soon as they are no longer necessary.

Section 1.6 Plowing. The Parties agree that OYA may plow seasonal or minimum maintenance roads along the Winter Access Route identified as Appendix A, as needed during or after construction of the Project. Nothing herein shall require the Town or County to plow seasonal or minimum maintenance roads during or after construction of this Project.

ARTICLE II

REPAIR OF DESIGNATED ROADS AND NON-PROJECT ROADS

Section 2.1 Obligation to Repair Town Roads. In the event that any of the (i) Designated Roads or related appurtenances, including bridges, culverts and other road fixtures, (ii) modifications and improvements made pursuant to Section 3.1 and described on Appendix B, or

(iii) Non-Project Roads are damaged as a result of the use by OYA or the OYA Parties, OYA agrees to repair (or cause to be repaired) such damage and to restore such road(s) or related appurtenance to the condition they were in prior to the use (as near as is reasonably practicable having due regard for normal wear and tear) under this Agreement. OYA shall either (i) restore Designated Roads in accordance with the specifications set forth on Appendix C or; (ii) ensure that the restored roads match core samples taken prior to construction. The Parties will mutually agree upon the best alternative and ensure said alternative is representative of the conditions of the Designated Roads which are to be used by OYA in excess of their design limits, both before and after construction in which specified roads are to be used by OYA in excess of their design limits. The Parties shall rely upon the Initial Survey and the Road Report conducted pursuant to Section 1.4 for purposes of determining whether the repair has been performed in accordance with the standard set forth in this Section 2.1. Any repair and restoration shall be promptly performed at such times as mutually agreed by OYA and the Designee, having due regard for time of year, weather, status of construction activities, safety, the presence of emergency conditions and the costs of such repairs compared with other times of year. Following completion of such repair, the Designee and OYA shall jointly inspect the repair to determine that it has been satisfactorily completed.

Section 2.2 Repairs of Designated Roads at the Request of Designees: Failure to Repair. The Designee may request in writing that OYA repair damage shown to be caused by OYA and the OYA Parties to the Designated Roads and related appurtenances and return such roads and appurtenances to the condition such roads and appurtenances were in prior to such damage (as near as is reasonably practicable having due regard for normal wear and tear). Prior to commencement of such repair, the Designees and OYA shall meet to review the damage in relation to the Initial Survey, Road Report or most recent subsequent survey, as applicable. OYA shall repair (or cause to be repaired) such damage and restore the road(s) to the standard set forth in Section 2.1, unless OYA or the OYA Parties demonstrate to the reasonable satisfaction of the Designees that the damage was not caused by OYA or the OYA Parties. Any repair and restoration shall be promptly performed at such times as OYA and the Designees determine, having due regard for the time of year, weather status of construction activities,

safety, the presence of emergency conditions and the costs of such repairs compared with other times of year. In the event that OYA fails to repair such roads and appurtenances within the agreed period, then, unless the Parties mutually agree otherwise, the applicable Town or County may make such repairs and shall invoice OYA for the costs incurred by the Town in connection with the repair. OYA shall pay such invoiced amounts within forty-five (45) days following receipt of the invoice. The burden shall be on OYA to establish that an invoice is unjustified or unreasonable subject to the dispute resolution provisions set forth in Section 11.2.

Section 2.3 Repairs of Non-Project Roads at the Request of Designee Failure to Repair. To the extent that permission is granted for the use of Non-Project Roads, the Designee may, from time to time, request in writing that OYA repair damage caused by OYA and the OYA Parties to the Non-Project Roads that are used by OYA or OYA Parties, and return such roads to the condition such roads were in prior to such damage (as near as is reasonably practicable having due regard for normal wear and tear). Prior to commencement of such repair, the Designee and OYA shall meet to review the damage in relation to the Initial Survey, Road Report or most recent subsequent survey, as applicable. OYA shall repair (or cause to be repaired) such damage and restore the road(s) to the standard set forth in Section 2.1, unless OYA or the OYA Parties demonstrate to the reasonable satisfaction of the Designees that the damage was not caused by OYA or the OYA Parties. Any repair and restoration shall be promptly performed at such times as OYA and the Designees determine, having due regard for safety, the presence of emergency conditions and the costs of such repairs. In the event that OYA fails to repair such roads within the agreed period, then, unless the Parties mutually agree otherwise, and if OYA fails to agree to undertake such repairs within five (5) days of its receipt of notice from the Town where the road is located, then the Town may make such repairs and shall invoice OYA for the costs incurred by the Town in connection with the repair. OYA shall pay such invoiced amounts within forty-five (45) days following receipt of the invoice. The burden shall be on OYA to establish that an invoice is unjustified or unreasonable subject to the dispute resolution provisions set forth in Article 11.2.

Section 2.4 Term of Obligation to Repair. Notwithstanding anything herein to the contrary, the obligations of OYA and the OYA Parties to repair certain roads in accordance with Sections 2.1, 2.2 and 2.3 shall terminate 240 days from completion of construction or such earlier date as the parties may agree. OYA shall notify the Town where the road is located in writing sixty (60) days prior to the date on which completion of construction is anticipated to occur.

ARTICLE III

IMPROVEMENT AND MODIFICATIONS TO DESIGNATED ROADS

Section 3.1 Improvements and Modifications to Designated Roads. The Parties acknowledge and agree that certain modifications and improvements to the Designated Roads and related appurtenant structures are necessary to accommodate the use of the Designated Roads by OYA and the OYA Parties contemplated hereby, including the widening of certain roads and modifications and improvements necessary to accommodate the heavy equipment

and materials to be transported on the Designated Roads. The modifications and improvements that shall be made by OYA are described in detail on Appendix B hereto. Modifications shall also include necessary tree clearing and trimming of overhead branches within the public right of way. OYA reserves the right to amend this Agreement to add roads and appurtenant structures if deemed necessary upon five (5) days' notice to the Town or County. The Town, County and OYA agree that such improvements and modifications shall be made in accordance with the specifications set forth on Appendix C. Notwithstanding anything herein to the contrary, upon the reasonable request of OYA, the Designees of the Town are authorized from time to time to grant consent to deviations from the specifications set forth on Appendix C.

Section 3.2 List of Materials and Construction Techniques. Ten (10) days prior to the commencement of any modification or improvement pursuant to this Article III, OYA shall deliver to the Designees of the Town and County a list of all materials to be used and construction techniques to be employed in connection therewith, subject to the approval of the Designees of the Town and County (not to be unreasonably withheld).

Section 3.3 Review of Designated Road Construction. Within seven (7) business days following completion of the work contemplated in Section 3.1, the Highway Superintendent in the Town where the road is located and County Highway Superintendent, as applicable, may review the pre-construction improvements and modifications.

Section 3.4 Compliance with Law. OYA agrees that all modifications and improvements shall comply with all applicable laws, and be in compliance with all applicable permits and other authorizations for the Project.

Section 3.5 Collection System Cabling. The Parties acknowledge that OYA may desire to route certain wires, cables, conduits and/or lines (and their associated equipment) related to the transmission of electricity at a voltage of up to ____ kV from the Project below ground at a location adjacent to, under or across certain Designated Roads, as identified on Appendix D (the "____ kV Installation"). The ____ k V Installation will include a fiber-optic communication cable that will be installed in conjunction with the electrical cables. In connection with the ____ kV Installation, the Parties further agree that OYA shall be responsible for obtaining all private land rights as are necessary to permit OYA to complete the ____ kV Installation and make the modifications and improvements to the Designated Roads contemplated by this Agreement, including obtaining all necessary land rights from private landowners adjacent to the Designated Roads. In connection with the ____ kV Installation, the Town and County hereby grants to OYA all such authorizations and approvals from the Town and County as are necessary to complete the ____ kV Installation, subject only to OYA's obtaining all private land rights as are required in connection therewith.

Section 3.6 Permits. OYA shall obtain all necessary governmental permits and approvals that are necessary to permit OYA to make the modifications and improvements to the Designated Roads other than permits required from the Town and County which are provided herein.

ARTICLE IV WARRANTIES BY OYA

Section 4.1 Workmanship and Material Warranties.

- a) OYA's engineering responsibility, including the selection of material and equipment suitable for the repair of, and modifications and improvements to, the Designated Roads and Non-Project Roads shall be carried out in accordance with generally accepted engineering practices, and OYA's construction responsibility shall be carried out in accordance with sound construction practices, subject to the provisions of Section 3.2. OYA shall require from its construction contractors and subcontractors the same standards of engineering and construction practice. OYA warrants that it shall perform and complete all repairs, modifications and improvements hereunder in a good and workmanlike manner.

- b) OYA warrants during the Applicable Warranty Period (as defined below) that all repairs, modifications and improvements hereunder shall be free from defects in material and workmanship. OYA shall remedy any defects in the repairs, modifications and improvements performed hereunder, workmanship, materials and equipment, including repairs, modifications and improvements, workmanship, materials and equipment provided by subcontractors, in accordance with Section 4.2 which appear during the "Applicable Warranty Period". A "defect" means any and all design, engineering, construction, manufacturing, installation, materials, equipment, repairs, modifications or improvements which (i) does not conform to the terms of this Agreement, (ii) fails to comply with the standards set forth in Section 4.1 (a), (iii) is not of specified quality, (iv) is of improper or inferior workmanship, or (v) is not suitable for use under the applicable climatic and range of operating conditions. As used herein, "Applicable Warranty Period" means, with respect to any repair, modification, or improvement by OYA hereunder, the time period that begins on the date repairs, modifications or improvements to Designated Roads are identified by OYA to the Town where the road is located as complete and ending on the date that is twelve (12) months after such completion date.

Section 4.2 Remedies. During the Applicable Warranty Period, the affected Town and County shall notify OYA in writing within fifteen (15) days of discovery of any defects in the repairs, modifications or improvements, provided that any delay by the Town beyond such fifteen (15) days in notifying OYA shall relieve OYA from liability only to the extent of any additional expense which may arise as the direct result of such delay. At no additional cost to the Town and County, OYA shall proceed promptly to take such action relating to its performance hereunder as is necessary to cause the repairs, modifications and improvements to comply with the warranties specified in this Agreement. OYA shall be available either at the Project or by telephone for the performance of warranty repairs on a seven (7) day a week, twenty-four (24) hours per day basis. OYA shall not be obligated to remedy any materials, equipment, repairs, modifications or improvements which becomes defective as a result of improper operation or maintenance by the Town or County or which results from normal wear and tear or use by parties other than OYA or the OYA Parties. In the event that OYA fails to repair such roads within the agreed period, then,

unless the Parties mutually agree otherwise, and if OYA fails to agree to undertake such repairs within thirty (30) days of its receipt of notice from the Town where the road is located and/or County, then the Town and/or County may make such repairs and shall invoice OYA for the costs incurred in connection with the repair. OYA shall pay such invoiced amounts within forty-five (45) days following receipt of the invoice. The burden shall be on OYA to establish that an invoice is unjustified or unreasonable subject to the dispute resolution provisions set forth in Section 11.2.

Section 4.3 Warranty. OYA warrants that all repairs, modifications, improvements, maintenance and materials furnished in connection with the performance by OYA and the OYA Parties under this Agreement shall be free and clear of all liens.

ARTICLE V POST CONSTRUCTION USE OF TOWN ROADS AND HIGHWAYS

Section 5.1 Operating, Maintaining, and Decommissioning Project. In the event operating, maintaining, or decommissioning of the Project requires the use by OYA of oversized or overweight vehicles, prior to entry upon roads and highways with such vehicles, OYA shall survey the condition of the affected roads and highways pursuant to this Agreement and produce to the Town an updated Post-Construction Report ("Updated Post Construction Report"). In the event of subsequent damage caused by operating, maintaining, or decommissioning of the Project (measured against the Updated Post-Construction Report), the Parties agree that this Agreement would be re-instated for a term necessary to repair such damage, in which event OYA's rights and obligations hereunder, including the warranty provisions of Article IV, shall be restored for the period necessary to repair such damage, if any. In no event shall the post-construction road use obligations limit the use of ordinary commercial trucks (i.e. pick-up trucks) in use for the Project.

ARTICLE VI INDEMNIFICATION; LIMITATION OF LIABILITY

Section 6.1 Indemnification by OYA. OYA hereby releases and agrees to indemnify and hold harmless the Town and the County and their respective officers, employees and agents, and their respective heirs, executors, administrators, successors and assigns (hereinafter collectively "Town and County Releasees") from any and all actions, causes of action, suits, claims, expenses (including reasonable attorney's fees) and demands against the Town and County Releasees arising out of or relating to the performance by OYA and the OYA Parties of their respective obligations under this Agreement. More particularly, but without in any way limiting the foregoing, OYA hereby releases the Town and County Releasees and agrees to indemnify and hold harmless the Town and County Releasees from any and all actions, causes of action, suits, claims, expenses (including reasonable attorney's fees) and demands arising directly or indirectly from any personal injury, death or property damage arising out of the use, construction, modifications, repair or improvement of any Designated Road or Non-Project Road by OYA, the OYA Parties and their respective employees, agents, representatives or

contractors.

Section 6.2 Indemnification by the Town and County. The Town and County hereby release and agree to indemnify and hold harmless OYA and its members, officers, directors, contractors, subcontractors, employees and agents, and their respective employees, heirs, executors, administrators, successors and assigns (hereinafter collectively ("OYA Releasees") from any and all actions, causes of action, suits, claims, expenses (including reasonable attorney's fees) and demands against the OYA Releasees arising out of or relating to the performance by the Town and County of their obligations under this Agreement. More particularly, but without in any way limiting the foregoing, the Town and County hereby release the OYA Releasees and agree to indemnify and hold harmless the OYA Releasees from any and all actions, causes of action, suits, claims, expenses (including reasonable attorney's fees) and demands arising directly or indirectly from any personal injury, death or property damage arising out of the use, construction, modifications, repair or improvement of any Designated Road by the Town and County, their respective employees, agents, representatives or contractors or their respective employees, agents or representatives.

Section 6.3 Limitation of Liability. Except as expressly set forth herein, the acts of each party are provided hereunder without warranty of any kind, express or implied, and each party hereby disclaims any such warranty including, without limitation any warranty of merchantability or fitness for a particular purpose. The Parties waive all claims against each other (and against each other's parent company and Affiliates and their respective members, shareholders, officers, directors, agents and employees) for any consequential, incidental, indirect, special, exemplary or punitive damages (including loss of actual or anticipated profits, revenues or product loss by reason of shutdown or non-operation; increased expense of operation, borrowing or financing; loss of use or productivity; or increased cost of capital); and, regardless of whether any such claim arises out of breach of contract or warranty, tort, product liability, indemnity, contribution, strict liability or any other legal theory.

ARTICLE VII INSURANCE

Section 7.1 Required Insurance. OYA shall at all times throughout the term of this Agreement maintain or cause to be maintained in full force and effect worker's compensation insurance in an amount required by applicable law and general liability insurance, naming the Town and County as additional insureds, in an amount of Five Million Dollars (\$5,000,000) in the aggregate. OYA may utilize any combination of primary and/or excess insurance to satisfy this requirement. OYA may elect to self-insure any or all of the insurance requirements contained in this Agreement. OYA will provide proof of such insurance in the form of a certificate of insurance or proof of self-insurance upon request of either Town or County. If a Town or County performs the repair, OYA shall have no obligation relative to indemnity or insurance for work completed and the Town or County performing the repair shall be responsible for its own insurance protection.

ARTICLE VIII

TERM; DEFAULT AND REMEDIES

Section 8.1 Term of Agreement. This Agreement shall become effective as of the date first written above and shall remain in effect, unless terminated earlier in accordance with this Agreement, until the date that is thirty (30) days after the date on which the Project facilities are decommissioned.

Section 8.2 Events of Default. The occurrence of anyone or more of the following events shall constitute an "Event of Default" hereunder:

- a) Failure by OYA to make any payment or reimbursement due under the terms of the Agreement when due and payable, and such failure continues for thirty (30) days after receipt by OYA of written notice of such failure from the affected Town or County.
- b) Any representation or warranty made by OYA in this Agreement or in any report, certificate, financial statement, or other instrument furnished at any time under or in connection with this Agreement shall prove to have been false, misleading, or incorrect in any material respect as of the date made.
- c) Failure by OYA to comply with any covenant, agreement or obligation contained in this Agreement, and such failure continues for thirty (30) days (or such longer period as the Parties may agree if such failure is not susceptible of cure within such thirty (30) day period) after receipt by OYA of written notice of such failure from the affected Town or County.
- d) OYA's:
 - i. application for or consent to the appointment of or the taking of possession by a receiver, custodian, trustee, or liquidator of itself or of all or a substantial part of its property;
 - ii. admission in writing of its inability to pay its debts as such debts become due;
 - iii. making of a general assignment for the benefit of its creditors;
 - iv. commencing a voluntary case under the United States Federal Bankruptcy Code (as now or hereafter in effect);
 - v. filing of a petition seeking to take advantage of any other law relating to bankruptcy, insolvency, reorganization, winding-up, or composition or adjustment of debts; or
 - vi. failure to controvert in a timely or appropriate manner, or acquiesce in

writing to, any petition filed against itself in an involuntary case under the United States Federal Bankruptcy Code.

- e) The institution of a case or proceeding against OYA in any court of competent jurisdiction, seeking (i) the liquidation, reorganization, dissolution, winding-up or composition or readjustment of debts of OYA; or (ii) the appointment of a trustee, receiver, custodian, liquidator or the like of OYA or of all or any substantial part of its assets, unless such proceeding or case is dismissed within sixty (60) days thereafter.

Section 8.3 Remedies Upon Default. Whenever an Event of Default described in Section 8.2 shall have occurred, the affected Town shall have the right to take any or all of the following actions:

- a) Declare OYA in default and to seek immediate payment of any amount due hereunder from any surety guaranteeing OYA's full and faithful performance hereunder, such payment to be immediately due and payable together with interest thereon at the rate of nine percent (9%) per annum from the date of default through the date of payment, without any further notice of demand of any kind or any presentment or protest.
- b) Take whatever action at law or in equity as may appear necessary or desirable to collect the amounts then due and thereafter to become due, or to enforce the performance or observance of any obligations, agreements, or covenants of OYA under this Agreement.

Section 8.4 Remedies Cumulative. The rights and remedies of the Town and County under this Agreement shall be cumulative and shall not exclude any other rights or remedies the Town and County may have at law or in equity with respect to any Event of Default under this Agreement.

Section 8.5 Arbitrary and Capricious. If at any time OYA shall disagree with the Designees, OYA may commence an Article 78 or other proceeding to determine whether such Designees have acted in an arbitrary or capricious manner. Any such litigation may only be commenced in Supreme Court, Jefferson County, or within the same judicial district.

Section 8.6 Attorney's Fees. In the event that the Town or County have to take any actions to enforce this Agreement or otherwise obtain compliance with its terms, OYA agrees to reimburse the Town and the County for all costs so incurred, including reasonable attorney's fees.

ARTICLE IX PROVISION OF SECURITY FOR PERFORMANCE

Section 9.1 Form of Security. For the period commencing on the date that construction of the Project begins and ending on the date that commercial operation of the Project is

achieved, OYA agrees to furnish a payment and performance bond or other reasonably equivalent form of security or guarantee (including, without limitation, an escrow agreement, letter of credit or parental guarantee) which OYA may elect to provide (i) in the amount of One Million Dollars (\$1,000,000.00) for the joint and several benefit of the Town and County, with such surety and on such terms as are reasonably satisfactory to the beneficiaries, guaranteeing (i) the full and faithful performance of the repairs, modifications and improvements by OYA and the OYA Parties hereunder and (ii) the payment of all liens of all persons performing labor or providing services, materials, equipment, supplies, machinery, and other items in connection with the performance of such repairs, modifications and improvements by OYA and the OYA Parties hereunder. The amount of the payment and performance bonds is not intended to limit in any way the obligation of OYA to perform its obligations, all in accordance with this Agreement.

Section 9.2 Release of Security. Upon the achievement of commercial operation of the Project and the completion of the repair work to the reasonable satisfaction of the Designees, the Designees shall issue to OYA a certification in writing that the performance is accepted in the form provided in Appendix F. If further repair work is required to return roads to a condition that is not worse than the conditions identified in the initial survey, the bond shall be reduced to an amount to cover the reasonable "repair" expenses for the remaining pre-construction repair work. Upon completion of the post-construction repair work, the Town or County shall issue the certificate contained in Appendix F, and release the funds remaining in the bond or other form of security. At such time the security provided pursuant to Section 9.1 shall be returned to OYA.

ARTICLE X FORCE MAJEURE EVENT

Section IO.I Force Majeure Event Defined. As used in this Agreement, "Force Majeure Event" means, causes or events that are beyond the reasonable control of, and without the fault or negligence of, the Party claiming such Force Majeure Event, including, without limitation, natural disasters; fire; lightning strikes; earthquake; unavailability of equipment; acts of God; unusually or unseasonably severe actions of the elements such as snow, floods, hurricanes, or tornadoes; causes or events affecting the performance of third-party suppliers of goods or services to the extent caused by an event that otherwise is a Force Majeure Event under this Section IO.I; sabotage; terrorism; war; riots or public disorders; strikes or other labor disputes; and actions or failures to act (including expropriation and requisition) of any governmental agency, to the extent such cause or event prevents or delays performance of any obligation imposed on the Party claiming such Force Majeure Event (other than an obligation to pay money).

Section 10.2 Applicability of Force Majeure Event. No Party will be in breach or liable for any delay or failure in its performance under this Agreement to the extent such performance is prevented or delayed due to a Force Majeure Event, provided that:

- a) the non-performing Party will give the other Parties written notice within forty

eight (48) hours of the commencement of the Force Majeure Event, with details to be supplied within fourteen (14) calendar days after the commencement of the Force Majeure Event further describing the particulars of the occurrence of the Force Majeure Event;

- b) the delay in performance will be of no greater scope and of no longer duration than is directly caused by the Force Majeure Event;
- c) the Party whose performance is delayed or prevented will proceed with commercially reasonable efforts to overcome the events or circumstances preventing or delaying performance and will provide a written report to the other Parties during the period that performance is delayed or prevented describing actions taken and to be taken to remedy the consequences of the Force Majeure Event, the schedule for such actions and the expected date by which performance will no longer be affected by the Force Majeure Event; and
- d) when the performance of the Party claiming the Force Majeure event is no longer being delayed or prevented, that Party will give the other Parties written notice to that effect.

ARTICLE XI DISPUTE RESOLUTION

Section 11.1 Disputes Regarding Repair Work. In the event OYA or the OYA Parties and the affected Town or County do not agree regarding the quality or completeness of any repair work conducted pursuant to this agreement, OYA and the affected Town or County shall commence mediation for adjudication of the dispute by notifying the independent engineer identified pursuant to this Agreement as the "mediator". If the mediator is satisfied with the quality and completeness of the repair work, no further work shall be required. If the mediator is satisfied with the scope of the repair work, the affected Town or County shall be responsible to pay the full amount of the mediator's invoice within 45 days. If the mediator is not satisfied with the quality and completeness of the repair, OYA shall perform the repair activities identified by the mediator but shall not be required to perform repair beyond what the affected Town or County had requested of OYA. If the mediator determines that the additional work was necessary, the mediator shall determine the appropriate amount of work which shall be performed by OYA. In the event that the work was deemed inadequate, OYA shall pay the full cost of the mediator's invoice.

Section 11.2 The mediator for such disputes regarding road work shall be _____ unless changed by mutual agreement of the parties.

ARTICLE XII MISCELLANEOUS PROVISIONS

Section 12.1 Governing Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York, without regard to the conflict of laws provisions in such state.

Section 12.2 Amendments and Integration. This Agreement (including Appendices) shall constitute the complete and entire agreement between the Parties with respect to the subject matter hereof. No prior statement or agreement, oral or written, shall vary or modify the written terms hereof. This Agreement may be amended only by a written agreement signed by all of the Parties.

Section 12.3 Assignment.

- a) Except as provided in subsections (b), (c), and (d) below, no Party to this Agreement shall assign, transfer, delegate or encumber this Agreement or any or all of its rights, interests or obligations under this Agreement without the prior written consent of the other Parties. In those instances in which the approval of a proposed assignee or transferee is required or requested: (i) such approval shall not be unreasonably withheld, conditioned or delayed; and (ii) without limiting the foregoing, in the case of the Town and County, the respective Town's approval and the County's approval may not be conditioned on the payment of any sum or the performance of any agreement other than the agreement of the assignee or transferee to perform the obligations of OYA pursuant to this Agreement.
- b) OYA may with reasonable notice to the Town and County, assign this Agreement or any or *all* of its rights, interests or obligations under this Agreement to
 - (i) an affiliate of OYA or (ii) an entity to which OYA has conveyed or leased the Project provided the assignment is in connection with the conveyance or lease of the Project; provided further that, the OYA assignee agrees in writing to be bound by the terms of this Agreement.
- c) OYA may, without the consent of the Town or the County, pledge, mortgage, grant a security interest in, or otherwise collaterally assign this Agreement or any or all of its rights, interests and obligations under this Agreement to any lender providing financing for the Project as security for OYA's obligations under the financing agreements (including a trustee or agent for the benefit of its lenders) (a "Permitted Collateral Assignee"). In connection with any such collateral assignment to a Permitted Collateral Assignee, each of the Town and County shall, upon the request of OYA, deliver to OYA and the Permitted Collateral Assignee without delay a consent agreement in a form reasonably requested by OYA and the Permitted Assignee and which shall contain customary provisions.

- d) OYA may, without the consent of the Town, assign this Agreement or any or all of its rights, interests and obligations under this Agreement to any corporation, partnership, limited liability company or other business entity that acquires all or substantially all of the assets used in connection with the Project or (ii) any corporation, partnership, limited liability company or other business entity that acquires all or a portion of the membership interests in OYA, provided that, in each case, such OYA assignee agrees in 'Writing to be bound by the terms of this Agreement.

Section 12.4 Notices. All notices, requests, demands and other communications required or permitted to be given by the Parties hereunder shall be in writing and shall be delivered in person or by facsimile or by first class certified mail, postage and fees prepaid, to the address of the intended recipient as set forth below. Notice delivered in person shall be acknowledged in writing at the time of receipt. Notice delivered by facsimile shall be acknowledged by return facsimile within twenty-four (24) hours, excluding Saturdays, Sundays, and public holidays. All such notices, requests, demands and other communications shall be deemed to have been received by the addressee, if by first class certified mail, three (3) days following mailing; if by facsimile, immediately following transmission; or if by personal delivery, upon such delivery. All such notices, requests, demands and other communications shall be sent to the following addresses:

To Town:

To the County: Jefferson County
 Attn: County Manager
 175 Arsenal Street
 Watertown, NY 13601

To OYA:

With a copy to:

Jefferson County
Attn: County Manager
175 Arsenal Street
Watertown, NY 13601

OYA
ATTN:

The foregoing addresses may be changed by any Party by giving written notice to the other Parties as provided above.

Section 12.5 Exercise of Rights and Waiver. The failure of any Party to exercise any

right under this Agreement shall not, unless otherwise provided or agreed to in writing, be deemed a waiver thereof; nor shall a waiver by any Party of any provisions hereof be deemed a waiver of any future compliance therewith, and such provisions shall remain in full force and effect.

Section 12.6 Independent Contractor: Relation of the Parties. The status of OYA under this Agreement shall be that of an independent contractor and not that of an agent, and in accordance with such status, OYA and its officers, agents, employees, representatives and servants shall at all times during the term of this Agreement conduct themselves in a manner consistent with such status and by reason of this Agreement shall neither hold themselves out as, nor claim to be acting in the capacity of, officers, employees, agents, representatives or servants of the Town or the County. As an independent contractor, OYA shall accept full responsibility for providing to its employees all statutory coverage for worker's compensation, unemployment, disability or other coverage required by law.

Section 12.7 Severability. In the event that any clause, provision or remedy in this Agreement shall, for any reason, be deemed invalid or unenforceable, the remaining clauses and provisions shall not be affected, impaired or invalidated and shall remain in full force and effect.

Section 12.8 Headings and Construction. The section headings in this Agreement are inserted for convenience of reference only and shall in no way effect, modify, define, or be used in construing the text of the Agreement. Where the context requires, all singular words in the Agreement shall be construed to include their plural and all words of neuter gender shall be construed to include the masculine and feminine forms of such words. Notwithstanding the fact that this Agreement has been prepared by one of the Parties, all of the Parties confirm that they and their respective counsel have reviewed, negotiated and adopted this Agreement as the joint agreement and understanding of the Parties. This Agreement is to be construed as a whole and any presumption that ambiguities are to be resolved against the primary drafting party shall not apply. All Appendices and Exhibits referenced in this Agreement are incorporated in and form a part of this Agreement.

Section 12.9 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.

Section 12.10 No Third Party Beneficiary. No provisions of this Agreement shall in any way inure to the benefit of any person or third party so as to constitute any such person or third party as a third-party beneficiary under this Agreement, or of any one or more of the terms of this Agreement or otherwise give rise to any cause of action in any person not a Party hereto.

Section 12.11 Confidentiality. All data and information acquired by the Town and the County from OYA (or its affiliates, representatives, agents or contractors) in connection with the performance by OYA of its obligations hereunder, including information regarding the Project, shall be confidential, subject to the limitations on confidential records and the related

provisions of the NY Freedom of Information Law, and will not be disclosed by the Town or the County to any third party, and upon request of OYA will be returned thereto, except that the Town will not be obligated to return any such information contained in documents generated by the Town or the County that are stored electronically by the Town and the County. With respect to any such retained electronically stored confidential information, the Town and the County will continue to comply with the obligations of this Section 12.11, subject to the Town' and County's obligations under the New York Freedom of Information Law. Notwithstanding the foregoing, the Parties acknowledge and agree that such confidential information may be disclosed to third parties as may be necessary for OYA and the Town and the County to perform their respective obligations under this Agreement. This provision will not prevent the Town and the County from providing any confidential information or in response to the reasonable request of any government agency charged with regulating such party's affairs, provided that, if feasible, the Town and the County will give prior notice to OYA of such disclosure and, if so requested by OYA, will have used all reasonable efforts to oppose or resist the requested disclosure, as appropriate under the circumstance, or to otherwise make such disclosure pursuant to a protective order or other similar arrangement for confidentiality.

Section 12.12 Representative of OYA. OYA shall appoint a representative to act as the manager and coordinator of this Agreement on OYA's behalf ("OYA Representative"). The OYA Representative shall act as liaison for OYA's communications with the Town, and their respective Designees. All written communications given to or received from the OYA Representative shall be binding on OYA.

Section 12.13 Safety. OYA and the OYA Parties shall perform the work hereunder in a safe manner and shall obey all safety requirements of OYA that may be established from time to time. While work is being done on Designated Roads, OYA shall cause the OYA Parties to (i) place signs stating that people and vehicles are entering a construction area, (ii) identify certain hazards that may be present on the road, and (iii) act in accordance with the Manual of Uniform Traffic Control Devices where applicable. OYA also agrees to cause the OYA Parties to provide traffic control on the Designated Roads when such roads are blocked during their use by OYA or the OYA Parties under this Agreement.

Section 12.14 Dust Control. Prior to commencing work under this Agreement, OYA shall prepare a plan for dust control during periods of construction or repair of the Designated Roads, which plan shall be subject to approval by the Designees of Town and County (which shall not be unreasonably withheld, conditioned or delayed). If the Plan is not reviewed and either approved or disapproved within 5 business days, the plan is deemed approved. OYA agrees to use environmentally approved chemicals to control dust in necessary areas where water is not a sufficient source to keep dust under control for safety and visibility reasons. OYA shall maintain reasonable dust control measures throughout construction including applying water or other dust control palliative on the Designated Roads used during construction. In the event OYA does not maintain a reasonable level of dust control, the Highway Department for the affected Town or County, after notifying OYA of their failure to maintain proper level of dust control, will apply liquid dust control during Project construction and OYA agrees to reimburse the affected Town or County for said costs.

Section 12.15 Excess Materials. OYA and the OYA Parties agree that in connection with certain improvements to be made hereunder, there may be certain materials removed that are no longer necessary (the "Excess Materials"). OYA agrees to remove such materials from Town roads and intersections and stockpile them for use by the Town and County. The Designees of the Town and County agree to designate a place on Town property or such other location as the parties reasonably agree in which the Excess Materials will be stored.

[SIGNATURES FOLLOW ON NEXT PAGE]

IN WIINESS WHEREOF, the Parties have caused their authorized representatives to execute this Agreement for Road Use, Repair and Improvements this _____ day of _____, 2019.

Town of [REDACTED]

By:
Title: Town Supervisor

Jefferson County

By:
Title:

OYA, LLC

By:
Title:

APPENDIX A DESIGNATED ROADS
[Must be Agreed to Prior to Construction]

APPENDIX B IMPROVEMENTS AND MODIFICATIONS

Please see attached figure which may be provided prior to construction. Additional minimal improvements may be made at road intersections and we will supplement this figure upon completion of our final evaluation.

APPENDIX C

SPECIFICATIONS FOR IMPROVEMENTS AND MODIFICATIONS

The majority of the Designated Road modifications and improvements will be accomplished using conventional earth excavating equipment employing traditional cut and fill procedures. Rock excavation techniques may be warranted in certain locations to achieve the required grades. Road widening within the Town's and County's road limits shall be accomplished as follows:

- After the removal of soft, wet or otherwise unsuitable materials from within the shoulder areas, the exposed sub grade of the area to be widened shall be proof-rolled with approved construction equipment such as a loaded 10 wheel tandem dump truck or loaded pan. This measure will help increase the density of the existing ground and help locate any isolated soft spots, which are too unstable to accommodate compacted fill.
- Unstable areas shall, as mutually agreed to by the parties, be excavated and, prior to fill placement, an approved geogrid shall be incorporated to stabilize abridged soft areas on an as needed basis. Alternative subgrade stabilization methods other than geogrid may be proposed by OYA and approval shall not be unreasonably withheld.
- New fill will not be placed on surfaces that are muddy or frozen, or have not been approved by testing and/or proof rolling.
- All sloping areas upon which fill is to be placed shall be benched or "notched" so that a smooth interface between existing ground and new fill will not be present.
- For permanent improvements or modifications, controlled fill slopes shall be constructed at 2.5H: 1 V slopes or flatter. All fill slopes will have final grades sloped such that surface water from precipitation is directed away from the face of the slopes. In addition, erosion matting may be used to help establish and maintain vegetative growth on the face of the slopes.
- All fill areas shall be sufficiently sloped and properly sealed with a smooth drum roller at the end of each workday to help prevent softening from surface water infiltration.
- For County Roads: A minimum surfacing thickness of 6" inches minus crushed limestone shall remain on all aggregate roads.
- For Town Roads: A minimum surfacing of thickness of 4" inches minus crushed limestone shall remain on all aggregate roads.
- Upon the completion of the project and in conjunction with the repair of the Designated Roads, all ditches along those roads shall be cleaned and all culvert pipes shall, to the extent they have been damaged by OYA, be replaced.

Both coarse and fine aggregate materials to be used for improving Designated Roads will primarily be obtained from local quarries to the extent the materials meet the required specifications and the cost is competitive with other sources for material. Shale shall not be used as fill material except on road shoulders and for temporary roads; provided however; that OYA shall not use shale on road shoulders in the Town. The typical fill section will utilize coarse aggregate such as a crusher run in the deeper portion of a fill and be capped with finer aggregate meeting the requirements of a NYDOT approved road sub base material. The use of geogrids will be utilized as needed, to stabilize and/or bridge soft, wet or otherwise unsuitable soil conditions. If the improvements extend beyond the affected Town' and/or County's right of way, it is OYA's responsibility to obtain the appropriate landowner's consent.

APPENDIX D
_____ Kv COLLECTION LINE INSTALLATION

1. Underground and Overhead Collection Lines - See Attached Map

Underground collection lines may be routed across and along and parallel to the following Designated Roads (exact locations and distances are subject to final engineering and approval by the Designee, not to be unreasonably withheld). The list of roads shall be set forth here and provided to the Town and County prior to construction.

The description of the location of the overhead crossings shall be provided prior to construction.

There are a total of _____ crossings, _____ Town Roads, _____ County Roads. The following is a list of these crossings:

(to be provided prior to construction]

APPENDIX E
IDENTIFICATION OF LOCATIONS FOR ROAD CORING

[To be Provided Prior to Construction]

**APPENDIX F
FORM OF RELEASE**

**RECEIPT OF REPAIR ESTIMATE PAYMENT AND
RELEASE FROM ROAD REPAIR OBLIGATIONS**

TO ALL TO WHOM THESE PRESENTS SHALL COME OR MAY CONCERN KNOW THAT the TOWN OF [REDACTED], a municipal corporation duly organized and existing under the laws of the State of New York, as RELEASOR, in consideration of good and valuable consideration, received from OYA, LLC, an limited partnership with offices at _____, New York, as RELEASEE, receipt whereof is hereby acknowledged, releases and discharges RELEASEE, its successors and assigns, of any claims for damages or otherwise for repair and reconstruction of roads or road structures in the Town of [REDACTED] relating to, or arising out of, in any way, the construction of the Project and to hold Releasee harmless without responsibility for any damages incurred by the Town of [REDACTED] as a result.

Releasor hereby covenants to Releasee, and its principals, agents, members and/or managers, that Releasor will not sue or otherwise assert any claim of any nature or description whatsoever against Releasee with regard to, or associated with, any claims for or arising out of repair and reconstruction of roads or road structures in the Town of [REDACTED].

This release may not be changed orally.

In Witness Whereof, the Releasor has executed this Instrument on the _____ day of _____, 2019

TOWN OF [REDACTED]

By:
Title: Town Supervisor

STATE OF NEW YORK
COUNTY OF JEFFERSON

On _____, 2019 before me, the undersigned personally appeared personally known to be as proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed in the within instrument and acknowledged to be that he executed the same in his capacity and that his signature on the instrument, the individual or person upon behalf of which the individual acted, executed the instrument.

Notary Public

Appendix I: Potential Solar Location Maps from 2020

In late 2019, the Tug Hill Commission collaborated with regional county partners in Jefferson, Lewis, Oneida and Oswego counties and the Development Authority of the North Country (DANC) to develop maps of likely solar project locations. These maps are intended for use as tools for municipalities to plan for solar development within their boundaries. They have not been updated since February 2020. The analyses used the following criteria to identify potential solar project sites.

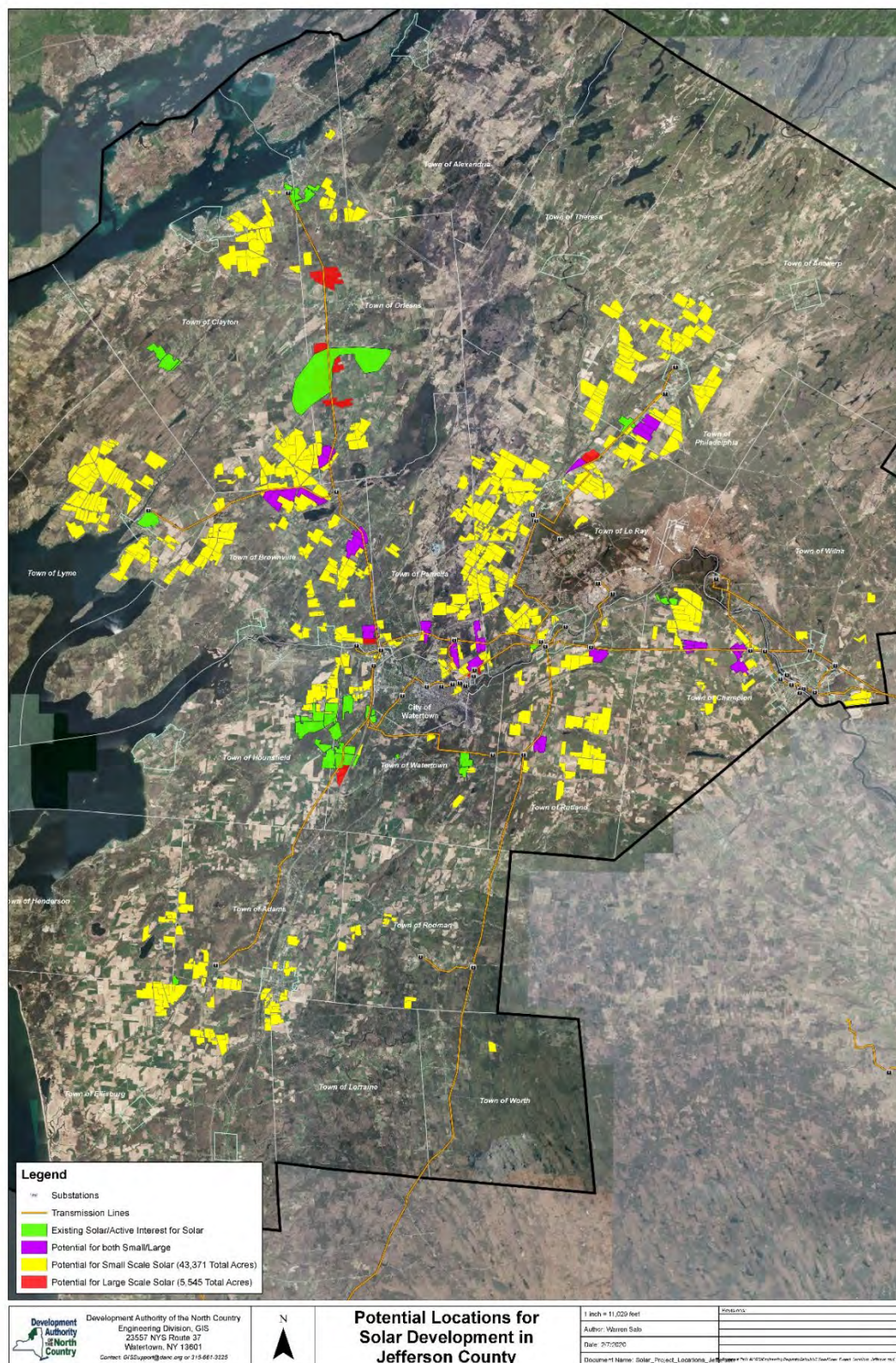
Criteria to identify potential sites for community-scale solar projects:

- 10-acre parcels adjacent to other 10-acre parcels, and parcels that alone are over 50 acres
- Within 3 miles of a substation
- Less than 25% forested and less than 25% wetlands
- Out of floodplain area
- Property assessed as industrial, commercial, vacant, residential, or agriculture
- Not government owned
- Less than 10% slope (if parcel contained less than 20% of an area covered by 10% slope, it was kept. If over 20% of area was at least a 10% slope, it was removed)

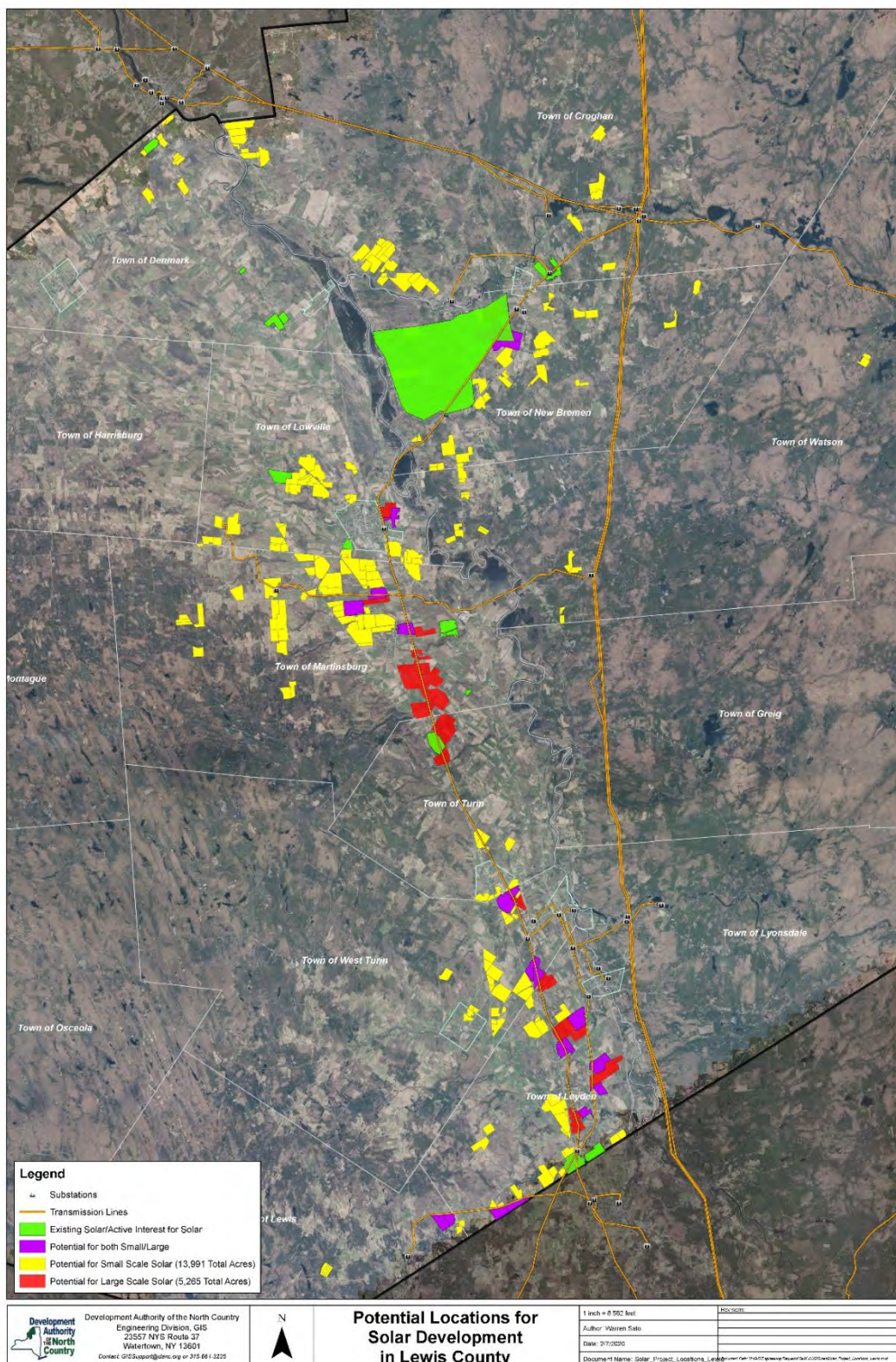
Criteria to identify potential sites for industrial-scale solar projects:

- 50-acre parcels adjacent to other 50-acre parcels, and parcels that alone are over 200 acres
- Within 1000 feet of a transmission line
- Less than 25% forested and less than 25% wetlands
- Out of floodplain area
- Property assessed as industrial, commercial, vacant, residential, or agriculture
- Not government owned
- Less than 10% slope (if parcel contained less than 20% of an area covered by 10% slope, it was kept. If over 20% of area was at least a 10% slope, it was removed).

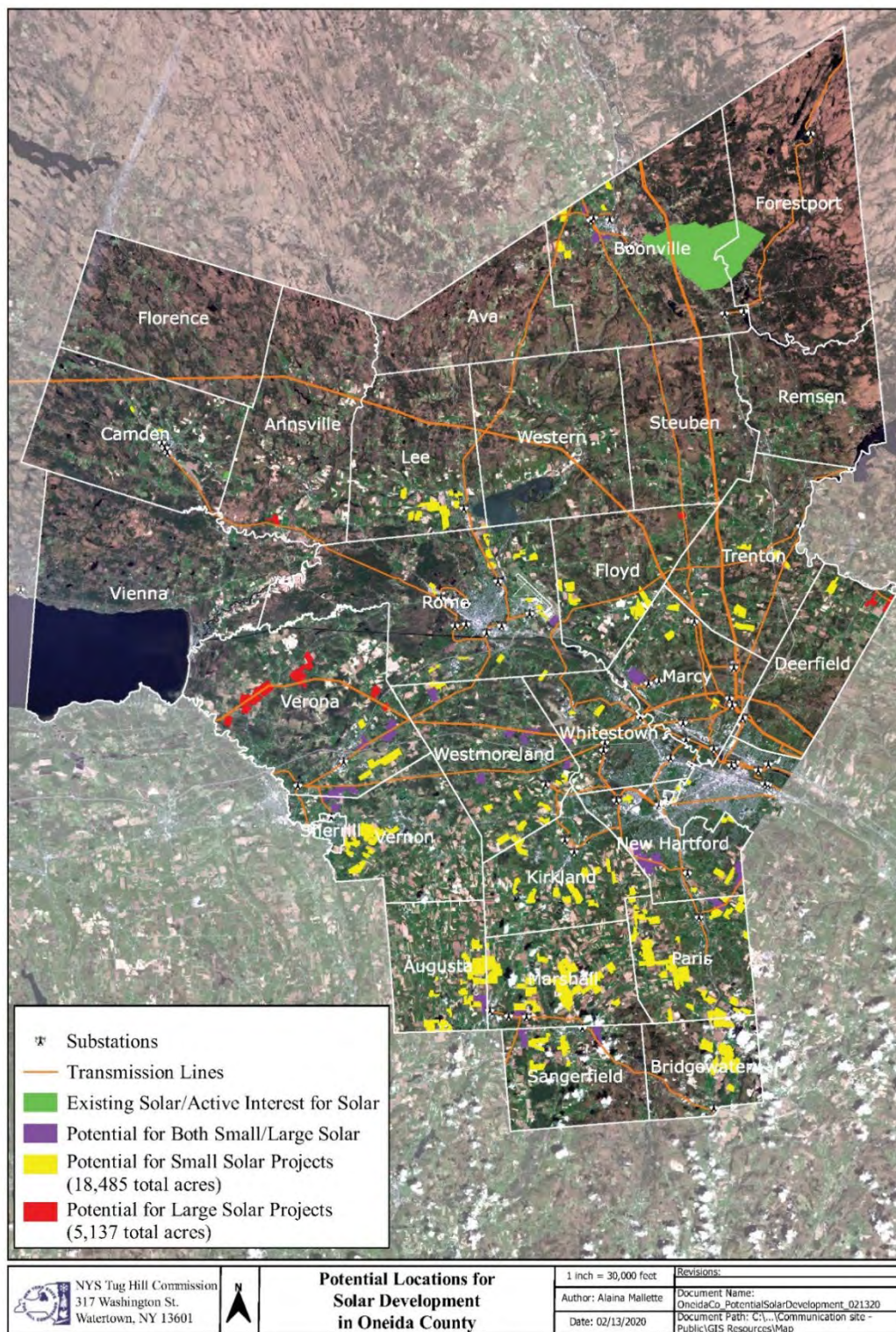
Note that prime farmland was not excluded from these studies as it would eliminate most options considered by major solar developers. Communities with significant areas of solar development potential may want to proactively plan for such development, which will be discussed in the planning tools section of this paper.



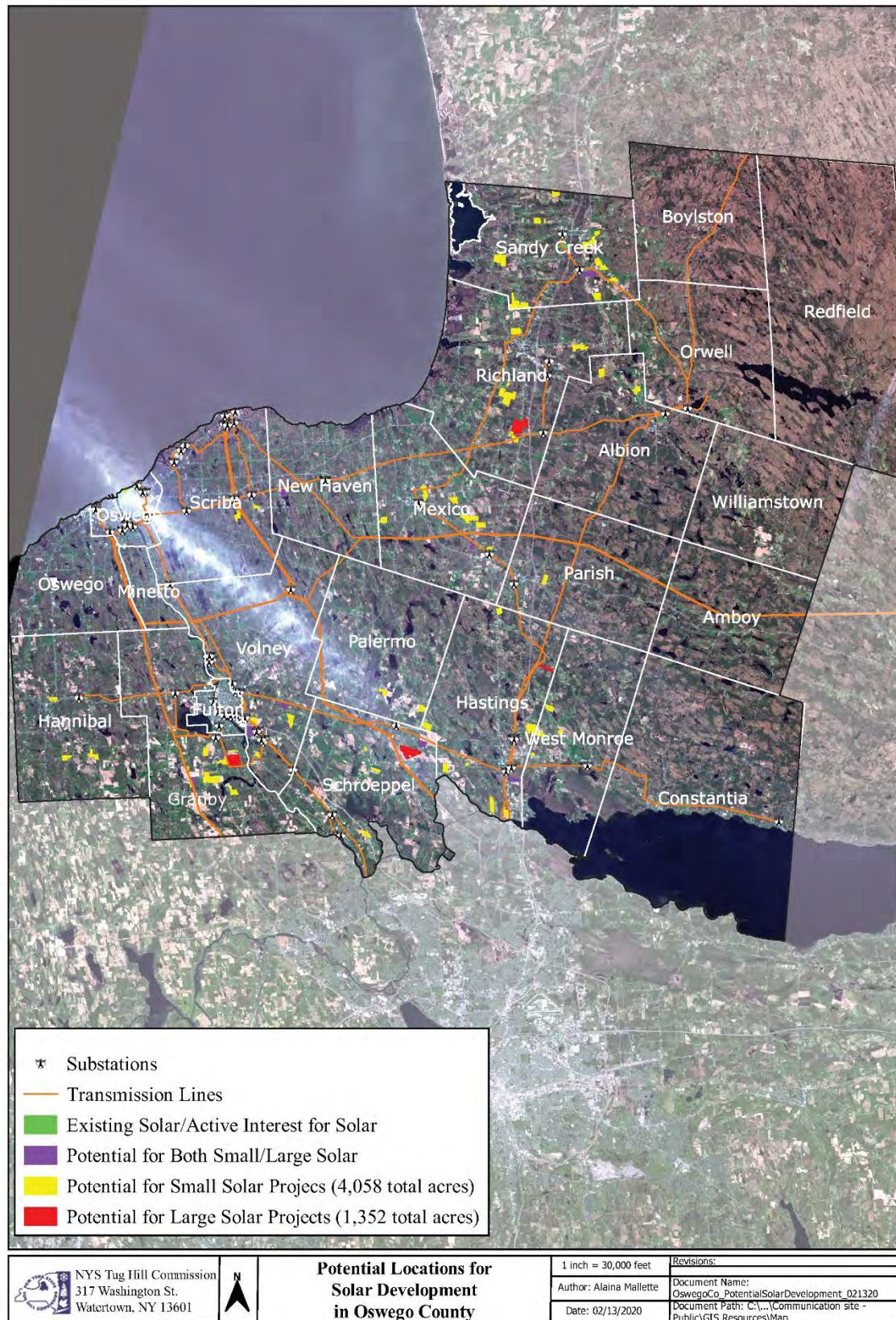
Potential Locations for Solar Development, Lewis County



Potential Locations for Solar Development, Oneida County



Potential Locations for Solar Development, Oswego County



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Endnotes

- ¹ “Climate Act,” accessed May 9th, 2023, <https://climate.ny.gov/>
- ² “Office of Renewable Energy Siting,” *New York State Office of Renewable Energy Siting*, accessed March 8th, 2023, <https://ores.ny.gov/news/office-renewable-energy-siting-announces-permitting-50-megawatt-solar-facility-town-dix>.
- ³ “Section 94-c; Major renewable energy development program,” *New York State Senate*, accessed March 8th, 2023 <https://www.nysenate.gov/legislation/laws/EXC/94-C>.
- ⁴ “Projects Under Review,” *Department of Public Service*, accessed March 8th, 2023, <https://dps.ny.gov/projects-under-review>.
- ⁵ “Tug Hill Resident and Landowner Survey 2019,” *New York State Tug Hill Commission*, accessed March 8th, 2023, <https://www.tughill.org/about/survey-2019/>.
- ⁶ “Solar for Your Home” and “Solar for Your Business,” *New York State Energy Research and Development Authority*, accessed March 8th, 2023, <https://www.nyserda.ny.gov/All-Programs/Programs/NY-Sun/Solar-for-Your-Home> and <https://www.nyserda.ny.gov/All-Programs/Programs/NY-Sun/Solar-for-Your-Business>.
- ⁷ “Community Solar for Home,” “Community Solar for Business,” *New York State Energy Research and Development Authority*, accessed March 8th, 2023, <https://www.nyserda.ny.gov/All-Programs/NY-Sun/Solar-for-Your-Business/Community-Solar> and <https://www.nyserda.ny.gov/All-Programs/NY-Sun/Solar-for-Your-Home/Community-Solar>
- ⁸ “Black River Solar,” *Nexamp*, accessed March 8th, 2023, <https://www.nexamp.com/project/170>
- ⁹ “Community solar project being built near Black River,” *Abbey Buttacavoli, WWNY*, accessed March 8th, 2023, <https://www.wwnytv.com/2020/07/23/community-solar-project-being-built-near-black-river/>
- ¹⁰ “Available Community Solar Projects,” *Nelnet*, accessed May 5th, 2023, <https://nelnetenergy.com/solar-farms/>
- ¹¹ “Greens Corners Solar Project,” *Boralex*, accessed May 9th, 2023, <https://www.boralex.com/projects/greens-corners/>
- ¹² “Sandy Creek Solar,” *Boralex*, accessed May 9th, 2023, <https://www.boralex.com/projects/sandy-creek/>
- ¹³ “Types of Solar Panels: Polycrystalline vs. Monocrystalline,” *Nexamp*, accessed April 25th, 2023, <https://www.nexamp.com/blog/types-of-solar-panels-polycrystalline-vs-monocrystalline>
- ¹⁴ Joshua Smalley, “What is the best foundation for a ground-mount solar array?,” *Solar Power World*, last modified August 17, 2015, <https://www.solarpowerworldonline.com/2015/08/what-is-the-best-foundation-for-a-ground-mount-solar-array/>.
- ¹⁵ “New Solar opportunities for a New Decade,” *U.S. Department of Energy*, accessed April 25th, 2023, <https://www.energy.gov/eere/solar/sunshot-2030>
- ¹⁶ Virginia Limmiatis, “National Grid Launches First-of-Its-Kind Battery Storage System,” *National Grid*, last modified June 3, 2019, <https://us.ournationalgrid.com/news-article/national-grid-launches-first-of-its-kind-battery-storage-system/>.
- ¹⁷ “Nexamp Provides Non-Wires Alternative Solution for National Grid Substation in New York,” access June 8, 2023, <https://www.nexamp.com/article/nexamp-provides-non-wires-alternative-solution-for-national-grid-substation-in-new-york>.
- ¹⁸ “Search DER Facilities in New York State,” *New York State Energy Research and Development Authority*, March 9th, 2023, <https://der.nyserda.ny.gov/search/>.
- ¹⁹ “Projects,” *Key Capture Energy*, accessed January 14, 2021, <https://www.keycaptureenergy.com/projects/>.
- ²⁰ “New York’s 6GW Energy Storage Roadmap,” *NYSERDA Energy Storage, On the Path to 2030*, accessed March 9th, 2023, <https://www.nyserda.ny.gov/All-Programs/Energy-Storage-Program>
- ²¹ “New York Battery Energy Storage System Guidebook for Local Governments,” *New York State Energy Research and Development Authority*, accessed March 9th, 2023, <https://www.nyserda.ny.gov/All-Programs/Clean-Energy-Siting-Resources/Battery-Energy-Storage-Guidebook>
- ²² “Solar Mapping Tool,” *Scenic Hudson*, accessed January 14, 2021, <https://scenichudson.maps.arcgis.com/apps/MapJournal/index.html?appid=3143a441d18f438ca3c38f1f52cad924#>.
- ²³ “Map of New York State Distributed Energy Resources Facilities,” *New York State Energy Research and Development Authority*, accessed April 27th, 2023, [NYSERDA DER Integrated Data System](https://www.nyserda.ny.gov/All-Programs/Clean-Energy-Siting-Resources/DER-Integrated-Data-System).
- ²⁴ “PV Hosting Capacity Map”, *National Grid*, accessed April 27th, 2023, https://systemdataportal.nationalgrid.com/NY/?_gl=1*_1jfk6dm*_ga*MTk0MDQ2MzMzNS4xNjgyMzU4Mjk0*_ga_FH50R0D4B4*MTY4MjYwODI1Ny4yLjAuMTY4MjYwODI1Ny42MC4wLjA.

Planning for Solar Energy Projects

- ²⁵ “Interconnection,” *NYSERDA Solar Program (NY-Sun)*, accessed April 27th, 2023, <https://www.nyserda.ny.gov/All-Programs/NY-Sun/Contractors/Resources-for-Contractors/Interconnection>
- ²⁶ “Solar can be installed on uneven hilly sites, with relative ease,” Billy Ludt, Published January 14th, 2019, accessed May 9th, 2023, <https://www.solarpowerworldonline.com/2019/01/solar-can-be-installed-on-uneven-hilly-sites-with-relative-ease/>
- ²⁷ “The largest landfill site in North America is now complete,” *Michelle Lewis, Electrek*, accessed May 1st, 2023, <https://electrek.co/2022/12/02/largest-landfill-solar-project-in-north-america/>
- ²⁸ “North Carolina Technical Guidance for Native Plantings on Solar Sites,” *North Carolina Pollinator Conservation Alliance*, accessed May 9th, 2023, <http://ncpollinatoralliance.org/wp-content/uploads/2018/10/NC-Solar-Technical-Guidance-Oct-2018.pdf>
- ²⁹ “What Does a Solar Farm Look Like, accessed June 8, 2023, https://www.azaliasolar.com/solar_farm_appearance
- ³⁰ “County of Lewis IDA Uniform Tax Exemption Policy and Guidelines (UTEP),” *Lewis County Industrial Development Agency*, accessed, March 9th, 2023, https://naturallylewis.com/images/LCIDA_Policies_2020/UniformTaxExemptionPolicy_LCIDA_02.03.2022.pdf
- ³¹ “Uniform Tax Exemption Policy,” *Jefferson County Industrial Development Agency*, accessed April 27, 2023, <https://www.jcida.com/wp-content/uploads/2021/07/JCIDA-UTEP-adopted-070921.pdf>
- ³² “Agriculture/Solar Calculator,” *NYS Tug Hill Commission*, accessed March 9, 2023, <https://www.tughill.org/agriculture-solar-calculator/>
- ³³ “Solar developers approached two NY farmers. Their choices reveal an industry in crisis,” *Thomas C. Zambito and Edward Harris, Democrat and Chronicle*, accessed March 9, 2023, <https://www.democratandchronicle.com/story/money/business/2022/12/19/ny-solar-buildout-presents-upstate-farmers-with-tempting-offers/69587824007/>
- ³⁴ “Draft Model Solar Law July 2019,” *Lewis County*, accessed January 14, 2021, [https://www.lewiscounty.org/media/Planning/Solar/Solar%20Law%20Model%20July%202019%20DANC%20\(002\).pdf](https://www.lewiscounty.org/media/Planning/Solar/Solar%20Law%20Model%20July%202019%20DANC%20(002).pdf)
- ³⁵ Mike Nuckols, “Considerations When Leasing Agricultural Lands to Solar Developers,” *Cornell Cooperative Extension Jefferson County*, last modified February 2020, https://s3.amazonaws.com/assets.cce.cornell.edu/attachments/42188/Considerations_When_Leasing_Agricultural_Lands_to_Solar_Developers.pdf?1579700937
- ³⁶ “Guidelines for Solar Energy Projects - Construction Mitigation for Agricultural Lands,” *New York State Department of Agriculture And Markets*, last modified October 18, 2019, https://agriculture.ny.gov/system/files/documents/2019/10/solar_energy_guidelines.pdf
- ³⁷ “Census of Agriculture, 2017 Census Volume 1, Chapter 2: County Level Data,” *United States Department of Agriculture*, accessed January 14, 2021, https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1_Chapter_2_County_Level/New_York/
- ³⁸ “A Profile of Agriculture in New York State,” *Office of the New York State Comptroller*, accessed January 14, 2021, <https://www.osc.state.ny.us/files/reports/special-topics/pdf/agriculture-report-2019.pdf>
- ³⁹ “New York Solar Guidebook for Local Governments,” *New York State Energy Research and Development Authority*, last modified May 2022, <https://www.nyserda.ny.gov/All-Programs/NY-Sun/Communities-and-Local-Governments/Solar-Guidebook-for-Local-Governments>
- ⁴⁰ “Farmland Owner’s Guide to Solar Leasing,” *Peggy Kirk Hall, Evin Bachelor and Eric Romich, Ohio State University Extension*, accessed March 9, 2023, https://farmlandinfo.org/wp-content/uploads/sites/2/2022/05/Ohio_Ext_Solar_Leasing_Guide_Revd_June2020.pdf
- ⁴¹ “Agrivoltaics: Coming Soon to a Farm Near You?,” *USDA Northeast Climate Hub*, accessed May 9, 2023, <https://www.climatehubs.usda.gov/hubs/northeast/topic/agrivoltaics-coming-soon-farm-near-you>
- ⁴² “Smart Solar Siting Scorecard,” *NYSERDA*, <https://portal.nyserda.ny.gov/servlet/servlet.FileDownload?file=00P8z000001IhRPEAY>
- ⁴³ “Land Use Moratoria,” *New York State Division of Local Government Services*, accessed January 14, 2021, <https://dos.ny.gov/system/files/documents/2023/01/land-use-moratoria.pdf>

Planning for Solar Energy Projects

- ⁴⁴ Marcus Wolf, “Solar project coming to Hounsfield,” *NNY360*, last modified June 13, 2018, https://www.nny360.com/news/solar-project-coming-to-hounsfield/article_4d076142-d9b2-5ec9-a506-1b2492858c26.html.
- ⁴⁵ “State Environmental Quality Review (SEQR) for Solar,” *New York State Energy Research and Development Authority*, accessed January 14, 2021, <https://www.nyserda.ny.gov/All-Programs/Clean-Energy-Siting-Resources/Solar-Guidebook>
- ⁴⁶ “The Next Generation of Wind Farms on Tug Hill,” *NYS Tug Hill Commission*, last modified January 2017, <https://tughill.org/wp-content/uploads/2022/06/Final-2022-Wind-Paper-Update-With-Cover.pdf>
- ⁴⁷ “Section 94-c; Major renewable energy development program,” *New York State Senate*, accessed March 14th, 2023 <https://www.nysenate.gov/legislation/laws/EXC/94-C>
- ⁴⁸ “Section 94-c Renewable Energy Siting Regulations; How Municipalities Can Influence the Outcome,” *Dwight E. Kanyuck, Esq., Knauf Shaw*, accessed March 14th, 2023, <https://usesusa.org/wp-content/uploads/2021/04/94-C-Renewable-Energy-Siting-Regulations-USES-4-7-21.pdf>
- ⁴⁹ “Solar Electric Generation Facilities and Impacts to Agriculture,” *New York State Department of Agriculture and Markets*, accessed March 14th, 2023, <https://cpb-us-e1.wpmucdn.com/blogs.cornell.edu/dist/b/2712/files/2020/04/6.-Solar-Development-and-Agricultural-Laws-Jason-Mulford-New-York-State-Department-of-Agriculture-and-Markets.pdf>.
- ⁵⁰ “Notice of Intent Requirement,” *New York State Department of Agriculture and Markets*, accessed January 14, 2021, <https://agriculture.ny.gov/land-and-water/notice-intent-requirement>.
- ⁵¹ Guidelines for Solar Energy Projects - Construction Mitigation for Agricultural Lands, accessed June 23, 2003, https://agriculture.ny.gov/system/files/documents/2019/10/solar_energy_guidelines.pdf
- ⁵² Patsy Nicosia, “Ag & Markets: NextEra impact on farmland ‘significant’,” *Times-Journal*, last modified June 24, 2020, <https://www.timesjournalonline.com/article.asp?id=105085>.
- ⁵³ “RPTL Section 487—Exemption for certain energy systems,” *New York State Department of Taxation and Finance*, accessed March 14, 2023, <https://www.tax.ny.gov/research/property/legal/localop/487opt.htm>.
- ⁵⁴ N.Y. Budget Could Devalue Local Renewable Energy Projects, accessed June 8, 2023, <https://www.governing.com/next/n-y-budget-could-devalue-local-renewable-energy-projects>.
- ⁵⁵ “Property Values and Utility-Scale Solar Facilities,” *Hillary Clark, American Clean Power Association*, accessed March 14, 2023, https://cleanpower.org/wp-content/uploads/2021/08/Solar-and-Property-Values-Fact-Sheet_2.2.22.pdf