FACT SHEET

USING SPECIAL USE PERMITS AND SITE PLAN REGULATIONS TO ALLOW LARGE-SCALE SOLAR INSTALLATIONS WHILE PROTECTING FARMLAND

This document describes two land-use tools New York State municipalities commonly use to site large-scale solar energy systems in agricultural areas: special-use permits and site plan regulations. The purpose is to provide guidance and step-by-step instructions for municipalities to support solar energy development that addresses the short- and long-term needs of farmers while also ensuring their most valuable and productive farmland remains in operation.

Municipalities are encouraged to proactively prepare for solar energy development. To assist their efforts, the New York State Energy and Research Authority (NYSERDA) offers free technical assistance to municipalities on land-use tools, including how to update municipal planning and zoning for solar energy systems. To request assistance, visit nyserda.ny.gov/solarguidebook or contact solarhelp@nyserda.ny.gov.

Introduction

New York State has committed to generating 50% of its electricity from renewable energy sources by 2030, increasing the demand for land used for solar energy generation. Some municipalities expressed concern about the pace and extent of solar development in their communities and have requested guidance and assistance. NYSERDA is pleased to provide this document in response.

NYSERDA administers the NY-Sun Program, which helps customers across the State adopt clean, renewable sources of energy. NY-Sun provides financial incentives for the installation of solar (also known as photovoltaic or PV) energy systems that convert sunlight into electricity.

A relatively new kind of solar project, community solar, has emerged as an efficient and affordable way for all New Yorkers to gain access to clean energy. Community solar allows individuals (including renters and others who cannot install a system on their own roof) to purchase individual panels or some fraction of the electricity a large-scale solar energy system generates. These customers receive credits for this electricity on their monthly utility bills. A community solar project benefits a community and its residents in several ways. Community solar customers—which may include municipalities, businesses, and residents—save money on their utility bills. Taxing jurisdictions can benefit from additional revenue through payment-in-lieu-of-tax (PILOT) agreements. Farmers generate revenue by leasing parts of their land. At the same time, given the passive nature of a solar energy system, a solar project does not create increased demands on municipal services and infrastructure.

Community solar projects are much larger than residential rooftop projects and are typically ground-mounted in rural areas, sometimes on agricultural land. A typical 2 MW AC community solar project will require about 10 acres of land. However, solar development is significantly constrained by several factors, including utility infrastructure, the locational cost of electricity, zoning policies and state policies. With some exceptions, the vast majority of municipalities in the State are unlikely to see more than 20 acres of solar development in the near future.

There may be some potential for agricultural uses on the same site as solar energy systems, including grazing livestock. Planting wildflowers for pollinator purposes on marginal or abandoned agricultural land can also provide some added benefit. In addition, the underlying land could be returned to agricultural use if properly restored at the end of the solar energy system lifecycle. A balanced approach that allows solar development and adequately preserves agricultural land is necessary.

Selecting a Land-Use Tool

In municipalities where large-scale solar energy systems are being considered, there are several land-use tools available to accommodate them in agricultural areas, including overlay zones, floating zones, special-use permits, site plan regulations, and environmental review requirements. The two land-use tools addressed here, special-use permits and site plan regulations, are the most commonly used for solar in New York State.

For information on navigating the development of solar projects in State-certified agricultural districts, see the NY-Sun Fact Sheet "Understanding Solar Installations in Agricultural Districts."

Special-Use Permits

Special-use permits may be used to impose conditions that mitigate adverse impacts on the most valuable or productive agricultural land. Zoning traditionally singles out land uses that are allowed in designated zoning districts on the condition that they are compatible with the surrounding neighborhood. These are called conditional uses and are allowed by the issuance of a special-use permit. The zoning code sets forth the specific standards under which the use will be permitted.

Steps: Municipalities can designate large-scale solar energy systems as a conditionally permitted use in agricultural zones and create a special permit process to carefully examine the impact before granting approval if the project meets certain conditions. These conditions (or

standards) can be calibrated to minimize the impact of a solar energy system on agricultural land and operations. Using the standards discussed in the Determining Approval Standards section, municipalities should determine the specific conditions for special permit approval. To create conditions that distinguish between the most valuable or productive farmland and land suitable for solar installations, municipalities may give special consideration to the Current Land Use and Soil Types section. Beyond the land selection standards, municipalities may wish to include conditions for special permit approval that mitigate a solar project's impact.

Once the conditions have been determined, amend the zoning code to incorporate this new special permit option in the selected zoning districts. The municipality might consider designating whichever board approves site plan applications as the same board to approve these new special-use permits. This will allow applicants with fully developed site plan applications to combine approvals and streamline the process. Within the regulation, the community may also include the zone's objectives—such as the preservation of farming on the most valuable or productive agricultural land—which could then be considered when evaluating the potential effect on neighborhood character when variances from the conditional use standards are requested.

It should be noted that in drafting the conditions for a special-use permit, it is often unavoidable that language will leave discretion or need interpretation in a given situation. While conditions should be detailed, detail often defies the diversity of situations that arise. Municipalities should anticipate that special-use permits will either be approved, denied, or approved upon conditions, where further conditions are needed to ensure that the delineated special-use permit conditions are met. Municipalities may consult the Determining Approval Standards section, where the conditions needed for special permit approval on a case-by-case basis are explained. For a sample special permit approach for large-scale systems, see the New York State Model Solar Energy Law (note that the specific land-use and siting conditions discussed here for preserving the most valuable or productive agricultural land will need to be incorporated, as they are not included in the Model Law).

Site Plan Regulations

Municipalities can amend site plan regulations to limit the adverse impact of permitted solar energy systems on farming operations, including conditions that avoid using the most valuable or productive agricultural land. A site plan is a drawing that shows the layout, arrangement, and design of a land-use proposal of a single site. Most municipalities have adopted site plan regulations that contain specifications for submissions and standards that applicants must meet before applying for a building permit. Municipalities can amend these regulations to require applicants for solar energy systems to identify information and meet standards regarding the suitability of the land for such use. This gives municipalities the opportunity to evaluate the solar energy system's impact on the most valuable or productive agricultural lands and deny a site plan application if such requirements are not met.

Steps: Municipalities can amend site plan regulations to require applicants to provide all information the municipality determines necessary for a solar energy system. Municipalities should first determine the specific standards they'll wish to impose for site plan approval. At a minimum, municipalities should develop standards from the Current Land Use and Soil Types section in order to distinguish between the most valuable or productive farmland and land suitable for solar installations. In making selections from the list of approval standards, municipalities should consider what additional information to require on site plan submissions for determining compliance and identifying mitigation opportunities. For example, in order to determine compliance with a requirement to locate structures for overhead collection lines in nonagricultural areas and along field edges where possible, applicants should be required to show field edges on the site plan.

Once the standards have been determined, municipalities may then amend site plan regulations to include new approval standards with submittal specifications. Municipalities with zoning codes may then amend the uses in agricultural zones to allow solar installations as-of-right or by special-use permit, but specifying that any such project triggers site plan review.

Special-Use Permit: Summary of Steps

1. Determine the conditions under which large-scale solar energy systems will be granted special-use permit approval. (Consult the Current Land Use and Soil Types section for minimum conditions and the remaining guidance for additional requirements.)
2. Create a menu of potential mitigation conditions to reduce impact in the event that projects are approved upon conditions.
3. Amend the zoning code to allow large-scale solar energy systems by special-use permit in zoning districts where agricultural uses dominate.

Site Plan Regulations: Summary of Steps

1. Determine new site plan approval standards to minimize the impact of large-scale solar on appropriate land. (Consult the Current Land Use and Soil Types section for minimum standards and the remaining guidance for additional requirements.)
2. Based on the selected additional site plan requirements, determine what additional submission information will be required to determine compliance and identify mitigation opportunities.
3. Amend the site plan regulations to include new approval standards with submittal specifications.
4. Amend the zoning code (if applicable) to specify that the development of any large-scale solar project triggers a site plan review.

Determining Approval Standards

When using the land-use tools previously described, municipalities may include conditions that protect their most valuable and productive agricultural land. For an inventory of potential mitigating conditions, municipalities should refer to the Department of Agriculture and Markets' *Guidelines for Agricultural Mitigation for Solar Energy Projects*. These guidelines include details on the following standards.

- **Current Land Use and Soil Types**, such as avoiding installation of solar arrays on the most valuable or productive farmland (provided in the order of importance of current use: active rotational farmland, permanent hayland, improved pasture, unimproved pasture, other support lands, fallow/inactive farmland), especially when containing prime farmland soils or soils of statewide importance.
- **Siting Goals**, such as minimizing adverse impacts to fencing and watering systems; minimizing impacts to normal farming operations by locating structures for overhead collection lines in nonagricultural areas and along field edges; avoiding dividing larger fields into smaller fields, which are more difficult to farm; eliminating the need for cut and fill and reducing the risk of creating drainage problems by locating access roads, which cross agricultural fields, along ridge tops and by following field contours; limiting the permanent width of access roads in agricultural fields to no more than 16 feet to minimize the loss of agricultural land; and avoiding existing drainage and erosion control structures.
- **Construction Requirements**, such as ensuring the surface of access roads is level with the adjacent agricultural field surface; installing culverts and waterbars to maintain natural drainage patterns; stripping all topsoil from agricultural areas used for vehicle and equipment traffic, parking, and equipment laydown and storage areas; stockpiling topsoil stripped from work areas; burying interconnected cables at a specified depth; removing excess subsoil and rock from the site; constructing temporary or permanent fences around work areas to prevent livestock access; and picking up and properly disposing of pieces of wire, bolts, and other unused metal objects.
- **Restoration Requirements**, such as decompacting disturbed agricultural areas; regrading access roads to allow for farm equipment crossing and to restore original surface drainage patterns; seeding restored agricultural areas with the seed mix specified by the landowner; repairing all surface or subsurface drainage structures damaged during construction; and, following restoration, remove all construction debris from the site.
- **Two-Year Monitoring and Remediation Immediately Following Restoration**, including mitigation of topsoil deficiency and trench settling with imported topsoil consistent with the quality of topsoil on the affected site; and determination of the appropriate rehabilitation measures if the subsequent crop productivity within affected areas is less than that of the adjacent unaffected agricultural land.
- **Decommissioning**, including removal of all above-ground structures and restoration of areas previously used for agricultural production, according to recommendations by the landowner, the Soil and Water Conservation District, and the Department of Agriculture and Markets; removal of concrete piers, footers, or other supports to a depth of 48 inches below the soil surface; and removal of access roads, unless otherwise specified by the landowner.

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