Town of Theresa

Solar Energy Law

Town of Theresa

Adopted on _____

Section 1 Authority

This zoning for Solar Energy Law is adopted pursuant to Section 261-263 of Town Law, of the State of New York, which authorizes the Town of Theresa to adopt zoning provisions that advance and protect the health, safety, and welfare of the community, and "to make provision for, so far as conditions may permit, the accommodation of solar energy systems and equipment and access to sunlight necessary therefor."

Section 2 Statement of Purpose.

This zoning for Solar Energy Law is adopted to advance and protect the public health, safety, and welfare of the Town of Theresa, including, but not limited to:

A. Taking advantage of a safe, abundant renewable, and non-polluting energy resource;
B. Decreasing the cost of energy to the owners of commercial and residential properties, including single-family homes; and
C. Increasing employment and business development in the region by furthering the installation of solar energy systems.
D. Retaining the quality of the existing community and its natural resources, including agricultural resources.

Section 3 Definitions

APPLICANT: The individual/entity responsible for the construction, operation, maintenance and decommissioning of a solar energy system.

BUILDING INTEGRATED PHOTOVOLTAIC SYSTEM: A combination of photovoltaic building components integrated into any building envelope system such as vertical facades including glass and other façade material, semitransparent skylight systems, roofing materials, and shading over windows.

GROUND-MOUNTED SOLAR ENERGY SYSTEM: A solar energy system that is anchored to the ground and attached to a pole or other mounting system, detached from any other structure.

LARGE-SCALE SOLAR ENERGY SYSTEM: A solar energy system that produces energy for the purpose of off-site sale or consumption.

LOT COVERAGE FOR SOLAR FACILITY: The area measured from the outer edge of the ground-mounted arrays, inverters, batteries, storage cells, and all other mechanical equipment used to create solar energy, exclusive of fencing and roadways and paths between rows of

modules. When measuring the outer edge of an array, the greatest possible footprint shall be identified and considered in the calculations.

PROJECT OWNER: Same as APPLICANT.

ROOF-MOUNTED SOLAR ENERGY SYSTEM: A solar panel system located on the roof of any legally permitted building or structure for the purpose of producing electricity.

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

SOLAR ENERGY SYSTEM (SES): An electrical generating system composed of a combination of both solar panels and solar energy equipment, including all infrastructure associated with electrical energy transmission, including access roads and interconnection poles.

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

SOLAR THERMAL ENERGY: Energy that can be harnessed from the sun's heat and radiation. Solar heated water can be used for space heating, bathing, cleaning and cooking.

SOLAR THERMAL SYSTEM: A system consisting of solar energy collectors with the primary purpose of converting sunlight into thermal energy and all devices and apparatus necessary to transfer and store the collected thermal energy for the purposes of heating water, space heating, or space cooling.

Section 4 Applicability

The requirements of this law shall apply to all solar energy systems installed or modified after its effective date, excluding general maintenance and repair and building integrated photovoltaic systems.

Section 5 Solar as Accessory Use or Structure

A. Roof-mounted Solar Energy Systems as an Accessory use
    1) Roof-mounted solar energy systems that generate electricity primarily for on-site consumption or for off-site consumption for the benefit of the primary on-site owner are permitted as an accessory use in all zoning districts when attached to any lawfully permitted building or structure. A valid zoningpermit

shall be obtained through the Town of Theresa Zoning Enforcement Officer prior to installation. Roof-Mounted Solar Energy Systems that generate electricity for off-site consumption only, are considered Large-Scale Solar Energy Systems, see Section 6.

2) Roof-Mounted solar energy systems require a building permit.
3) Roof-Mounted Solar energy systems shall not exceed the maximum height restrictions of the zoning district within which they are located and are provided the same height exemptions granted to building-mounted mechanical devices or equipment.
4) Roof-mounted solar energy system installations shall incorporate, when feasible, the following design requirements:
    a. Panels facing the front yard must be mounted on the roof's surface with a maximum distance of 18 inches between the roof and the highest edge of the system.
    b. Solar panels shall be placed and arranged such that reflected solar radiation or glare shall not be directed onto adjacent buildings, properties or roadways.)
5) Roof-mounted solar energy systems that generate electricity for primarily on-site consumption shall be exempt from site plan review under the local zoning law or other land use regulations.

B. Ground-Mounted Solar Energy System as an Accessory Use

1) Ground-mounted solar energy systems that generate electricity primarily for on-site consumption are permitted as accessary structures with a zoning permit within all zoning districts except CAR. Within the CAR district a Special Use Permit is required.
2) Ground-mounted solar arrays require a building permit.
3) Ground-mounted solar energy systems that generate electricity primarily for on-site consumption shall be limited to 20 feet in height when oriented at maximum tilt.
4) Ground-mounted solar energy systems are limited to maximum lot coverage of 50 percent. The surface area covered by ground-mounted solar panels shall be included in the total lot coverage calculation.
5) Ground-mounted solar energy systems shall adhere to the setback requirements for accessory uses of the underlying zoning district. All solar collectors must follow State and Federal flood plain regulations and specifications as they pertain to waterways, waterbodies, and designated wetlands.
6) The overall footprint of a ground-mounted solar energy system that uses electricity primarily on-site shall not exceed 6000 square feet of coverage in all districts.

7) All such ground-mounted solar energy systems in CAR district shall be installed in the side or rear yards only. Solar panels shall be placed and arranged such that reflected solar radiation or glare shall not be directed onto adjacent buildings, properties, or roadways.

C. Ground-Mounted in CAR & BC District by Special Use Permit

Ground-Mounted Solar Energy Systems are allowed in CAR and BC as accessory use by Special Use Permit application. Said application shall be made in accordance with Article 13 of the Town of Theresa Zoning Ordinance. In reviewing the application, the Planning Board, at its discretion, may take into account setbacks, maximum height, size and lot coverage, screening and buffering. No system will be allowed to be placed on the water side of a waterfront property.

Section 6 Approval Standards for Large-scale Solar Systems as a Special Use

A. Large-scale solar energy systems are permitted through the issuance of a special use permit only within the AR and BC districts subject to the requirements set forth in this Section, including site plan criteria. Large-scale energy systems are not permitted in the CAR district. Applications for the installation of a large-scale solar energy system shall be reviewed by the Zoning Enforcement Officer and referred, with comments, to the Town Planning Board for its review and action, which can include approval, approval with conditions, and denial, and, review by Jefferson County Planning Board pursuant to General Municipal Law Section 239m, when applicable.
   1) All solar energy systems shall be designed by a NYS Registered Architect or Professional Engineer and installed in conformance with the applicable International Building Code, International Fire Prevention Code, and National Fire Protection Association (NFPA) 70 standards, and National Electric Code.
   2) All solar collectors must follow State and Federal flood plain regulations and specifications as they pertain to waterways, waterbodies, and designated wetlands.

B. For a special use permit application, the Special Use Permit application is to be used as supplemented by the following provisions:
   1) If the property of the proposed project is to be leased, legal consent between all parties, specifying the use(s) of the land for the duration of the project, including easements and other agreements, shall be submitted.
   2) Plans showing the layout of the solar energy system signed and stamped by a Professional Engineer or Registered Architect shall be required, as well as a boundary survey prepared by a NYS Licensed Land Surveyor showing the relationship of the system to the boundaries of the property. The required plans for a Large-Scale SES should also depict at a minimum, the location of all utility

lines, the point of interconnection, equipment and pads, inverters, battery storage components, access roads, proposed vegetation and landscaping; existing landscaping should be depicted on the existing conditions plan or survey.

3) The equipment specification sheets shall be documented and submitted for all photovoltaic panels, significant components, mounting systems, and inverters that are to be installed.
4) Property operations and maintenance plan. Such plan shall describe continuing photovoltaic maintenance and property upkeep, such as mowing and trimming. Any required landscaping, buffering or screening shall be properly maintained throughout the life of the project.
5) To ensure the proper removal of large-scale solar energy systems a Decommissioning Plan shall be submitted as part of the application and reviewed by the Town Attorney. Compliance with this plan shall be made a condition of the issuance of a special use permit under this section. The plan must specify that after the large-scale energy system can no longer be used, or after a determination by the Town of Theresa that the project has been abandoned, it shall be removed by the applicant or any subsequent project owner. The plan shall demonstrate how the removal of all infrastructure and the remediation of soil and vegetation shall be conducted to return the parcel to a state consistent with the appropriate current zoning requirement. The plan shall also include an expected timeline for execution. A cost estimate detailing the projected cost of executing the plan shall be prepared by a Professional Engineer or contractor. Cost estimates shall consider inflation. Removal of large-scale solar energy systems must be completed in accordance with the plan. If the large-scale solar energy system is not decommissioned after being considered abandoned, the municipality may remove the system and restore the property and impose a lien on the property to cover these costs to the municipality.
6) The applicant shall be required to provide sureties, as set forth, for the removal of the large-scale solar energy system. Pursuant to the execution of the decommissioning plan, the applicant shall provide the Town with a bond in an amount determined by the Planning Board, but in no case less than 20 percent of the component/material cost (adjusted for inflation 20 years into the future after installation) to cover the expense of removal of the system and remediation of the landscape, in the event the Town must remove the facility. The bond shall be in a form acceptable to the Town Attorney, which includes, but are not limited to, a letter of credit, perpetual bond, or any combination thereof. The amount shall be reviewed annually by the Town Board and shall be adjusted if deemed necessary. If the bond is deemed to be adjusted, the applicant shall have 90 days from notice to provide an adjustment bond.

7) Glare Hazard Analysis. Solar panels shall be placed and arranged such that reflected solar radiation or glare shall not create a safety hazard for adjacent buildings, properties, or roadways. Exterior surfaces of all collectors and related equipment shall have a non-reflective finish. Particular attention shall be paid to panel orientation with regard to airport runway locations, and airplane flyover and approach patterns to minimize potential glare impacts on pilots based on the Glare Hazard Analysis.

   The applicant shall prepare a Glare Hazard Analysis report for Large-Sale SES with a generating capacity equal to or greater than 1 megawatt. The Glare Hazard Analysis shall be shared with both Ft Drum and the Watertown International Airport. Sharing this information will help identify any potential impacts on pilot maneuvers around Wheeler Sack Army Airfield, Range 48, and other Ft Drum training activities, in addition to the Watertown International Airport. Potential impacts can also be mitigated or reduced through beat practices for project layout or design.
8) The applicant shall notify Fort Drum Plans, Analysis and Integration Office as soon as possible to determine potential impacts to Fort Drum airfield and training activities. The applicant shall provide the Town with copies of all correspondence from Fort Drum.
9) The applicant shall notify the Watertown International Airport as soon as possible to determine potential impacts on the airport. The airport shall provide the Town with copies of all correspondence from the airport manager.
10) For projects Located on Agricultural lands:
    a. To the maximum extent practicable, any Large-Scale SES or large-scale battery storage systems located on the areas that consist of farmland of statewide importance shall not exceed 50% of the area of farmland of statewide importance on the parcel. Also, large-scale solar energy systems or large-scale battery energy storage systems on farmland of statewide importance shall be required to seed 20% of the total surface area underneath all solar panels on the lot with native perennial vegetation designed to attract pollinators.
    b. To. Maximum extent practicable, large-scale solar energy systems or large-scale battery energy systems located on farmland of statewide importance shall be constructed in accordance with the construction requirements of the New York State Department of Agriculture and Markets.
    c. Large-scale solar energy system or large-scale battery energy storage 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 practicable, when establishing perennial vegetation and beneficial foraging habitat, the owners shall use native plant species and seed mixes.

11) Landscape plan. A landscape plan is required for Large-Scale SES. The plan should include an existing site conditions sheet or survey that depicts all existing vegetation. The proposed landscaping plan should include all proposed landscaping, buffering, screening and fencing. Reasonable efforts shall be made to preserve perimeter vegetation to screen adjacent properties. Landscaping and screening is to be maintained through decommissioning.
12) Road Maintenance Agreement. For all large-scale solar and battery energy storage systems, a road maintenance agreement is required to be completed in consultation with the Town Highway Superintendent for the Town roads where the solar equipment, battery storage equipment or construction materials using heavy vehicles will be transported during project construction.
13) Noise. Noise producing equipment such as inverters and/or batteries shall be located to minimize noise impacts on adjacent properties. Their setback from properties should achieve no discernible difference from existing noise levels at the property line.
14) Emergency Operations Plan. An Emergency Operations Plan is required to be submitted for all Large-Scale SES and or battery storage systems. A copy of the approved emergency operations plan shall be given to the system owner, the local fire department, and the 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 and equipment as determined necessary by the Zoning Officer, Planning Board, Fire Chief and/or other Town official 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.

C. Special use permit standards.

1) Large-scale solar energy systems shall be limited to 20 feet in height when oriented at a maximum tilt. Large-Scale SES that incorporate agricultural activities beneath the panels shall be limited to the AR Zoning district height limit of 40 feet.
2) Large-scale solar energy systems shall be subject to a minimum 150 foot setback from all property lines. Side and rear yard setbacks can be reduced to zero between project lots when the project consists of multiple lots that are contiguous to one another.
3) A large-scale energy system that is ground-mounted shall not exceed 75 percent lot coverage of the lot on which it is installed. The surface area covered by solar facility shall be calculated in accordance with the definition of Lot Coverage For Solar Facility in Section 3 Definitions of this ordinance.
4) Large-scale solar energy systems may be required to be enclosed by fencing with warning signs with the project owner's contact information, as determined by the Town Planning Board. All required warning signs shall be placed on the entrance and perimeter of the fencing. The fencing shall be reviewed and approved by the Town Planning Board. The Town Planning Board shall determine if additional screening by any landscaping is needed to avoid adverse aesthetic impacts.
5) All large-scale solar energy systems shall have the least visual effect practical on the environment, as determined by the Town Planning Board. Based upon site specific conditions, including topography, existing structures and roadways, reasonable efforts shall be made to minimize visual impacts by preserving natural vegetation, and providing landscape screening to adjacent properties, public roads

and from public sites known to include important views or vistas. Screening should minimize the shading of solar collectors. Appurtenant structures such a inverters, batteries, equipment shelters, storage facilities, transformers, should be screened from adjoining residences.

6) As determined by the Town Planning Board, warning signs with the project owner's contact information may be required to be placed on the entrance and perimeter of the fencing. Solar equipment shall not be used for displaying any advertising. All signs, flags, streamers, or similar items, temporary or permanent, are prohibited on solar equipment except: (a) manufacturer's or installer's identification; (b) appropriate warning signs and placards; (c) signs that may be required by a Federal or State agency; and (d) signs that provide a 24 hour emergency contact phone number and warn of danger.
7) A road shall be provided to assure adequate emergency and service access. Maximum use of existing roads, public or private, shall be made. Access roads shall be gated.
8) The Town Planning Board may impose conditions on its approval of any Special Use Permit under this Section or in order to discharge its obligations under the State Environmental Quality Review Act (SEQRA)

Section 7 Abandonment

Solar energy systems are considered abandoned after 12 months without electrical energy generation and must be removed from the property. The site shall be restored to a condition consistent with the appropriate current zoning requirement within one year of abandonment determination.

Section 8 Solar Rights

A. Pursuant to Chapter 263 of New York Town Law, all parcels within the Town of Theresa shall be permitted to enjoy access to direct sunlight.
B. No structure shall be constructed, or vegetation installed that limits direct solar access greater than 50 percent of the ground surface of adjoining lots to less than 6 hours on any day of the year.

Section 9 Enforcement

Any violation of the Solar Energy Law shall be subject to the same civil and criminal penalties provided for the zoning regulations of the Town of Theresa.

Section 10 Severability

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