

**TOWN OF MINA**  
**PROPOSED SOLAR ENERGY SYSTEMS REGULATIONS**  
**September 9, 2022**

- **AUTHORITY:** This Solar Energy Systems Regulations Local Law is adopted pursuant to sections 261-263 of the Town Law and section 20 of the Municipal Home Rule Law of the State of New York, which authorizes the Town to adopt zoning provisions that advance and protect the health, safety and welfare of the community, and, in accordance with the Town 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.
- **PURPOSE:** The intent of this regulation is to protect the health, safety, welfare, and environment of the residents and property owners of the Town of Mina. This section regulates the construction, maintenance and placement of solar energy systems and equipment in the Town of Mina. The purpose of this regulation is to balance the potential impact on neighbors when solar collectors may be installed near their property, while preserving the rights of property owners to install solar collection systems. The Town of Mina recognizes the importance of solar systems in generating electricity for on-premises and off-premises use, the reduction of greenhouse gas emissions, and support for emerging solar system economic development.
- **DEFINITIONS:** As used in this section, the following terms shall have the meaning indicated:

**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).

**BUILDING-INTEGRATED PHOTOVOLTAIC (BIPV)** – A solar energy system that consists of integrating photovoltaic modules into the building structure. Technologies include PV shingles or tiles, PV laminates and PV glass. Examples of placement include vertical facades, semi-transparent skylights, awnings, fixed awnings and roofs.

**FACILITY AREA** – The cumulative land area occupied during the commercial operation of the solar energy generating facility. This shall include all areas and equipment within the facility's perimeter boundary – including the solar energy system, onsite interconnection equipment, onsite electrical energy storage equipment, and any other associated equipment – as well as any site improvements beyond the facility's perimeter boundary such as access roads, permanent parking areas, or other permanent improvements. The facility area shall not include site improvements

established for impact mitigation purposes, including but not limited to vegetative buffers and landscaping features.

**GLARE** – The effect by reflections of light with intensity sufficient to cause annoyance, discomfort, loss of visual performance or visibility, which may result from solar installations.

**GROUND-MOUNTED SYSTEMS** – A solar energy system that is anchored to the ground and attached to a pole or similar mounting system, detached from any other structure

**KILOWATT (KW)** – A unit of power equal to 1,000 watts. The nameplate capacity of residential and commercial solar energy systems may be described in terms of KW.

**LARGE-SCALE SYSTEM** – Solar energy systems located on land in the Town of Mina used primarily to convert solar energy into electricity for off-site consumption or sale and/or systems that have the capacity to produce more than 25 KW per hour of energy

**NATIVE PERENNIAL VEGETATION** – Wildflowers, grasses or other native vegetation that serve as habitat, forage, or migratory stations. Such vegetation may be used to preserve land erosion or provide aesthetics to solar installations.

**PRIME FARMLAND** – Land designated by the U.S. Department of Agriculture (USDA), the Natural Resource Conservation Service (NRCS), or other local agencies that is deemed important to the production of food, feed, or commerce.

**ROOF-MOUNTED SYSTEM** – A solar power system in which solar panels are mounted on top of the structure of a roof either as a flush-mounted system or as modules fixed to frames which can be tilted toward the sun at an optimal angle. Roof-mounted systems shall be located on a roof of a permitted principal use or accessory structure.

**SMALL-SCALE SOLAR** – A solar energy system that is installed and placed for the production of energy for consumption only on site, and that has the capacity to produce less than 25 KW per hour of energy.

**SOLAR DEVICE** – A solar energy generating device that generates less than 100 watts of electricity, is less than five (5) square feet in size, and is not connected to a building's electric system. Examples of such devices are solar panels for yard lights, battery maintainers, boat lifts, and electric fences.

SOLAR ACCESS – Space open and clear of overhangs, trees, shade, or other obstructions so as to permit the active use of solar energy systems on individual properties.

SOLAR ENERGY EQUIPMENT – Energy storage devices, materials, hardware, or electrical equipment and conduit associated with the production of electrical energy.

SOLAR ENERGY PRODUCTION FACILITY – Energy generation facility or area of land principally used to convert solar energy to electricity, whether by photovoltaics, concentrating solar thermal devices or various experimental solar technologies, with the primary purpose of wholesale or retail sales 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, but excludes Solar Devices. 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:
  - Roof-Mounted Systems with capacity of up to 5 KW of energy.
  - Ground-Mounted Systems with capacity of up to 5 KW of energy.
  
- B. Tier 2 Solar Energy Systems include the following:
  - Ground-Mounted Systems or Small Scale Solar System with a capacity of between 5 KW and 25 KW of energy.
  
- C. Tier 3 Solar Energy Systems include the following:
  - Ground-Mounted Systems and Large-Scale Systems with a capacity greater than 25 KW of energy.
  - Any Solar Energy System that is not accessory use structure for the primary use of the land upon which it rests.

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

- **APPLICABILITY AND GENERAL REQUIREMENTS**

1. The requirements of this section shall apply to all solar energy systems installed or modified after the effective date of the local law.
2. All solar energy systems shall be designed, erected and installed or modified in accordance with all applicable codes, regulations and

industry standards as referenced in the New York State Fire Prevention and Building Code, National Electrical Code (NEC), National Fire Protection Code 70 (NFPA 70), the New York State Energy Conservation Code and the Town Code.

3. Tier 3 Solar Energy installation proposals shall be referred to the Mina Town Board for evaluation and approval. The Town Board may also refer the proposal to the Planning Board for review.
  4. Issuance of permits and approvals by the Zoning Board of Appeals or Town Board shall include review pursuant to the State Environmental Quality Review Act implementing the regulations of 6 NYCRR Part 671.
  5. Fire Service Notice. Notification in writing to the Fire Department having operational authority at the location where the system will be installed shall be made no later than 10 days following installation.
  6. Notification shall include a site map showing the location of the solar energy electrical panel, as well as the proper operation of the disconnect switch(es) in the event of a fire or other emergency where the homeowner, tenant or other personnel is not available or familiar with the safe shut-down operation of unit so as to have the ability to cut power from the solar panels.
  7. In addition, a proper written statement showing the method of shut-down shall be posted inside the main electrical panel of the unit which can be readily accessible for and to firefighting personnel.
  8. Electrical Inspection. All solar energy installations will require approval by a certified electrical inspector prior to use.
  9. Engineering Data. All solar energy systems must provide engineering or architectural data which certifies the load bearing capabilities for roof trusses, rafters, and other structural components.
  10. Abandonment or Disuse. The property owner or homeowner bears full responsibility for all costs associated with the dismantling and proper disposal of any solar energy system that becomes unsafe, goes into disuse, and/or is abandoned.
- **PERMITTING REQUIREMENTS FOR TIER 1 AND TIER 2 SOLAR SYSTEMS AND SOLAR AS AN ACCESSORY STRUCTURE.** This section governs the placement and installation of Tier 1 and Tier 2 solar systems as an accessory use structure. The installation of Tier 1 and Tier 2 solar systems require the applicant to obtain a Building Permit and a Special Use Permit from the Town of Mina.

- **Roof-Mounted Systems.** Roof-mounted systems are permitted as an accessory use in zoning districts AR, A1, R1, R2, B2, B3, B4 (refer to Matrix) when attached to a lawfully permitted principal structure and/or accessory structure, subject to the following requirements:
  - Height. Solar energy systems shall not exceed maximum height restrictions within any zoning district.
  - Setback. Solar energy systems are subject to the setback requirements of the underlying zoning district.
  - Aesthetics. Solar energy equipment shall incorporate the following design requirements:
    1. Solar energy equipment shall be installed outside the primary residence or accessory structure.
    2. Roof-mounted panels must be mounted at the same angle as the roof's surface with a maximum distance of 18 inches between the roof and highest edge of the system. Panels cannot exceed a height of 30 feet, per the *Town of Mina Zoning Law (Rev. 7/11/20)*.
    3. Roof-mounted panels must be positioned to avoid glare which interferes with other properties or restricts views.
    4. Roof-mounted panels must have anti-reflective coating.
  
- **Ground-Mounted Systems.** Ground-mounted solar energy systems are permitted as an accessory structure in zoning districts AR, A1, B2, B3, B4 (see Matrix) subject to the following requirements:
  - Height. Solar panels are restricted to a maximum height of 15 feet. All height measurements are calculated when the solar energy system is oriented at maximum tilt.
  - Setback(s). Ground-mounted solar panels are subject to setback requirements of the underlying zoning district.
  - Aesthetics. Solar energy equipment shall incorporate the following design requirements:
    1. All ground-mounted solar panels shall be installed in the rear yard wherever feasible. If a side yard installation is applied for, it shall be subject to all setback requirements of the underlying zoning district.
    2. Lot coverage. The Facility Area of ground-mounted solar panels shall be included in lot coverage and surface

calculations and shall not exceed 35% of the lot size coverage for all structures inclusive.

3. Glare. All Solar Panels shall have anti-reflective coating to prevent glare.

- **PERMITTING REQUIREMENTS FOR TIER 3 SOLAR ENERGY SYSTEMS AND SOLAR AS PRINCIPAL USE**

- All Tier 3 Solar Energy Systems and principal use Solar Energy Systems are permitted only in the A1 (Agricultural) District and require a Special Use Permit and approval by the Mina Town Board. They are subject to the zoning regulations in the applicable district as well as the requirements set forth in this section.
- Tier 3 Solar Systems within the Town of Mina are subject to review and approval by the Mina Town Board.
- All applications for Tier 3 Solar Systems must include a detailed site plan and engineering documentation for presentation to the Zoning Board of Appeals and the Mina Town Board.

- **SPECIAL USE PERMIT STANDARDS FOR TIER 3 SOLAR ENERGY SYSTEMS**

- Height and setback. Tier 3 Solar Energy Systems shall adhere to the height and setback requirements of the underlying zoning district. Additional restrictions may be imposed during the Special Use Permit process.
- Tier 3 Solar Energy Systems shall be located on lots with a minimum lot size of 25 acres, and which are large enough to accommodate the proposed system and still meet the required setback requirements for the zoning district.
- Tier 3 Solar Energy Systems shall be enclosed by fencing to prevent unauthorized access. Warning signs shall be placed on the entrance and perimeter of the fencing. The height and type of fencing shall be determined by the special use permit process.
- On-site electrical interconnection lines and distribution lines shall be placed underground, unless otherwise required by the utility.
- The removal of existing vegetation shall be limited to the extent necessary for the construction and maintenance of the solar installation.

- No signage or graphic content shall be displayed on the solar energy systems with the exception of the manufacturer's name, equipment specification information, safety information, and 24-hour contact information. As required by the 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.
- All solar panels shall have anti-reflective coatings to prevent glare.
- Lighting of the Solar Energy System shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.
- Solar Energy Systems are not permitted on Prime Farmland.
- Site Plan must include property lines, physical features, and proposed roads for the project site. Site plan should also include changes to landscape, clearing, grading, lighting and planting of native vegetation to mitigate soil erosion, and provide screening vegetation.
- **SPECIAL USE PERMIT APPLICATION REQUIREMENTS.** All applications for a Special Use Permit under this law shall contain the following information:
  - Name, address, and contact information of the applicant, property owner(s) and agent submitting the proposed project application.
  - If the property of the proposed project is to be leased, legal consent among all parties, specifying the use(s) of the land for the duration of the project, including easements and other agreements.
  - Plans showing the layout of the proposed system signed by a professional engineer or registered architect.
  - Equipment specification sheets for all photovoltaic panels, significant components, mounting systems and invertors that are to be installed.
  - A property operation and maintenance plan describing continuing photovoltaic maintenance and property upkeep, such as mowing, trimming, etc.

- **DECOMMISSIONING PLAN.** A Decommission Plan shall be signed and filed by the owner and/or operator of Tier 3 Solar Energy Systems.
  - To ensure the proper removal of Tier 3 Solar Systems, the decommissioning plan shall include details regarding the removal of all infrastructures and the remediation of soil and vegetation back to its original state prior to construction, unless otherwise permitted. A cost estimate detailing the projected cost of executing the decommissioning plan shall be prepared by a professional engineer or contractor. Cost estimates shall take inflation into account. In the case of a lease, the cost of decommissioning shall be borne by the entity or corporation that is leasing the property in question and not the landowner.
  - A form of surety, through escrow, bond or the equivalency of, shall be established prior to the commencement of construction to cover the cost of decommissioning the site. The surety bond must be sufficient to cover a life expectancy of 20 years for the solar energy system; decommissioning cost estimates shall take inflation into account. The amount of surety required may not exceed 125% of the estimated cost to decommission. The Town of Mina will hold the surety bond in reserve.
  - Prior to the expiration of the tenth and twentieth years of operation, and each additional tenth year of operation, the owner shall be required to submit a revised cost estimate for the decommissioning plan prepared by a professional engineer. If the decommissioning cost estimate is higher than the previous cost estimate, the owner shall be required to increase the amount of the escrow bond accordingly.
  - If the solar energy system falls into disuse or abandonment, the Town of Mina may immediately liquidate the escrow to remedy the situation.
- **SOLAR STORAGE BATTERIES**
  - If solar storage batteries are included as part of the solar energy collection system, they must be placed in a secure container or enclosure meeting the requirements of the New York State Building Code. All solar storage batteries, their maintenance, placement, and location shall also comply with all applicable rules and regulations as promulgated by New York State Building Code and the National Electric Code.



- When batteries are no longer in use, they shall be disposed of in accordance with the laws of the State of New York and any applicable federal or local disposal rules or regulations.
- **VIOLATIONS**
  - Any violation of any provisions of this section shall be punishable by fine or other penalty, and/or a term of imprisonment as prescribed in Section 268 of the Town Law of the State of New York.
  - Notwithstanding the above, the Town Mina hereby reserves the right to proceed to enforce the provisions of this section by civil action, injunction, and any other remedy afforded to it by the laws of the State of New York or the United States.
- **ENFORCEMENT.** Any violation of this Solar Energy 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 the Town of Mina.
- **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.

**ZONING DISTRICT MATRIX—SOLAR ENERGY SYSTEMS**

<b>ZONING DISTRICT</b>	<b>TIER 1</b>	<b>TIER 2</b>	<b>TIER 3</b>
<b>R1 - Residential</b>	Yes	No	No
<b>R2 – Lakeside Residential</b>	Yes	No	No
<b>A1 – Agricultural</b>	Yes	Yes	Yes *
<b>AR – Agricultural Residential</b>	Yes	Yes	No
<b>B1 – Historic Business</b>	No	No	No
<b>B2 – Commercial Business</b>	Yes	Yes	No
<b>B3 – Sunnyside Business</b>	Yes	Yes	No
<b>B4 – Shadyside Business</b>	Yes	Yes	No

*\* Requires approval by the Mina Town Board*