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ARTICLE I

General

1. Title.

This local law may be cited as the "Renewable Energy Facilities Law of the Village of Freeville, New York."

2. Purpose.

The Board of Trustees of the Village of Freeville adopts this local law to promote the effective and efficient use of the Town's renewable non-polluting energy resources through solar power conversion systems and wind energy conversion systems, subject to reasonable conditions that will protect the environment and the health, safety, and welfare of the public.

In adopting this ordinance, the Village of Freeville recognizes that:

- It is in the public interest to produce electricity in a manner that serves the needs of the community while minimizing potentially negative impacts;
- The Village of Freeville has a responsibility to implement and promote electricity production practices that protect the natural environment;
- The Village of Freeville has existing solar and wind resources and therefore has the responsibility to include solar and wind power possibilities in its vision of energy sources.

3. Resources.

The Village of Freeville used the following resources in generating this Renewable Energy Facilities Law:

- "Renewable Energy Facilities Law of the Town of Dryden, New York."
- "Wind Energy Permit Toolkit" by the Northwest Wind Resource and Action Center of the Wind Exchange of the U.S. Department of Energy
- "Local Concerns about Renewable Energy 03-16-17 Presentation Notes" by the Tompkins County Planning Department

4. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

RATED POWER OUTPUT: The power output of a wind turbine at a constant Hub Height wind speed of 11m/s (25 mph).

SOLAR POWER FACILITY - an electric-generating facility consisting of one or more solar panels under common ownership or operating control.

SOLAR POWER FACILITY, Building Mounted – A Solar Power Facility located on the exterior of any legally permitted building or structure or integrated into a building envelope.

SOLAR POWER FACILITY, Ground Mounted – A Solar Power Facility that is anchored to the ground and attached to a pole or other mounting system that is detached from any other structure.

SOLAR POWER FACILITY, Large Scale – A Solar Power Facility that feeds electricity directly into the grid, is primarily for the purpose of onsite or offsite sale or electricity consumption, and is larger than two thousand (2,000) square feet in area of solar collectors per lot.

SOLAR POWER FACILITY, Small Scale – A Solar Energy System that has the primary function of serving the building(s) with which it is associated on the same lot, but also may have the ability to sell small quantities of energy back to the electric utility provider and does not exceed two thousand (2,000) square feet in area of solar collectors per lot.

WIND ENERGY FACILITY - an electric-generating facility consisting of one or more Wind Turbines under common ownership or operating control. The facility may include substations, meteorological towers, access roads, control building, electrical interconnection equipment, and other ancillary equipment.

WIND ENERGY FACILITY, Small Scale - a Wind Energy Facility consisting of a wind turbine, tower, and associated control or conversion electronics with a rated power output of twenty five kilowatts (25 kW) or less

WIND ENERGY FACILITY, Medium Scale - a Wind Energy Facility with a rated power output of more than 25 kW up to and including 500 kW

WIND ENERGY FACILITY, Large Scale - a Wind Energy Facility with a rated power output of greater than 500 kW.

WIND MEASUREMENT TOWER — a tower equipped with weather measurement instrumentation to provide data collection and recording for the purpose of assessing the wind resource at a site. Wind Measurement Towers are temporary towers allowed as part of a Wind Energy Facility application, where the requested tower meets all requirements of this local law. Permits are valid for a period of thirty six months and renewable for an additional twenty four months.

WIND TURBINE HEIGHT - the distance measured from grade at the center of the tower to the highest point of the Wind Turbine, including the rotor blade tip when it reaches its highest elevation.

5. Permit and Site Plan Requirements

A. All Solar Power Facilities and wind energy conversion systems require a construction permit to be built. See the Land Use and Development Code for fee requirements.

B. Small Scale Ground Mounted and roof mounted Solar Power Facilities do not require a site plan.

C. Large Scale Solar Power Facilities require a site plan. All wind energy facilities, including Wind Measurement Towers, require a site plan. See Articles II and III for specific site plan

requirements. See the Freeville Land Use and Development Code for general site plan and fee requirements.

D. If the property owner is not the applicant, the application shall include a notarized letter or other notarized written permission signed by the property owner (i) confirming that the property owner is familiar with the proposed applications and (ii) authorizing the submission of the application.

E. If the real property for 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. A signed and notarized document must be submitted that clearly delineates the party responsible for decommissioning at the end of the life of the system and in the event the owner of the system abandons the system for any reason.

6. Applicability.

A. The requirements of this local law shall apply to all Solar Power Facilities and wind energy facilities proposed, operated, modified, or constructed within the Village after the effective date of this local law.

B. Solar Power Facilities and wind energy facilities constructed and placed in operation prior to the effective date of this local law, shall not be required to meet the requirements of this local law; provided, however, that no modification or alteration to an existing renewable energy facility shall be allowed without full compliance with this local law.

C. Ground Mounted Solar Power Facilities are considered accessory structures and shall be governed by laws pertaining to accessory structures.

7. Severability.

Should any provision of this local law be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of this local law as a whole or any part thereof other than the part so decided to be unconstitutional or invalid.

8. Effective Date.

This local law shall be effective upon its filing with the Secretary of State in accordance with the Municipal Home Rule Law.

ARTICLE II

Wind Energy Facilities

1. Intent.

This Article regulates and provides standards for Wind Energy Facilities. The intent of this Article is to encourage the development of wind energy systems while protecting the public health, safety, and community welfare.

2. Permitted Areas.

Small Scale wind energy facilities are allowed in all land use zones as an accessory use on lots with adequate area for setbacks. Wind energy facilities located in residential zones shall be located on side or rear lots, not front lots. Note that the setback requirements shall preclude most lots in residential zones.

Medium and Large Scale wind energy facilities are only allowed within areas zoned for agricultural use. Medium and Large Scale wind energy facilities shall not be built in Critical Environmental Areas or Unique Natural Areas. If extensive areas of forest need to be cleared, an environmental impact statement shall be required.

3. Setback Requirements.

Setbacks are measured from the center of the wind turbine base to the property line or nearest point on the foundation of an occupied building. Guy cables and other accessory support structures may be located within the setback areas, as long as no part of the structure extends closer than ten feet to the property line or occupied building.

Small Scale wind energy facilities shall be set back by the Wind Turbine Height plus 10 feet from any lot line.

Medium and Large Scale wind energy facilities shall be set back by the Wind Turbine Height plus fifty percent from any lot line.

Medium and Large Scale wind energy facilities shall be set back by twice the Wind Turbine Height from existing buildings on neighboring properties. Large Scale wind energy facilities shall be set back by the Wind Turbine Height from existing buildings on its own site.

Set back requirements are designed for safety of neighbors and to minimize the noise impact on neighbors. Noise decreases as the square of the distance from the Wind Energy Facility.

4. Height Requirements.

Wind energy facilities are exempt from height restrictions for accessory structures, provided they meet the setback requirements and FAA regulations. Wind speed increases as the Wind Turbine Height increases, making taller turbines more efficient and economical. The rotor blade tip shall, at its lowest point, have clearance of no less than thirty (30) feet above all trees within a radius from the

center point of the base equal to three times the length of the blade. For example, for a turbine with 5-foot blades, the blade tips at their lowest point must be no less than 30 feet above surrounding trees within a 15-foot radius of the tower's base.

5. Installation and Design

A. Design: All electrical and mechanical components of the Wind Energy Facility shall comply with applicable local, state and national codes, regulations, and notification requirements and industry standards: including of the New York State Uniform Fire Prevention Building Code, National Electric Code. Signed engineering drawings supported by a soil study shall be required prior to the issuance of a building permit.

B. Safety: The Wind Energy Facility shall satisfy the following: a. to prevent unauthorized climbing, all climbing apparatus shall be removed from the lower ten (10) feet of the tower, or ladder access shall be restricted; b. Appropriate warning signage (e.g., "Danger, High Voltage") shall be placed where it is clearly visible by persons standing near the tower base or other Ground Mounted electrical equipment; c. All electrical and control equipment shall be safely and appropriately enclosed from unintentional access by means such as lockable equipment cabinetry, enclosed tower with lockable access door, or something similar; d. All wiring between the wind turbines and substation or point of interconnection shall be underground; e. A wind turbine with a latticework tower shall be surrounded by a locked fence at least 6 feet in height that encloses the tower to discourage climbing; f. The wind turbine shall be equipped with manual and automatic over-speed controls.

C. Anchor Points: Anchor points for any guy wires for a system tower shall be located within the property that the system is located on and not on or across any above-ground electric transmission or distribution lines. The point of attachment for the guy wires shall be enclosed by a fence six feet high or sheathed in bright orange or yellow covering from three to eight feet above the ground.

D. Appearance: The visual appearance of wind energy facilities shall at a minimum: a. **maintain** a non-reflective finish and be a non-obtrusive color such as white, off-white, gray, or the manufacturer's default color, except as required by the Federal Aviation Administration; b. **not** be artificially lighted, except to the extent required by the Federal Aviation Administration; and c. **not** display advertising (including flags, streamers or decorative items), except for identification of the turbine manufacturer, facility owner, and/or operator. The system shall be designed and located in such a manner to minimize adverse visual impacts from public viewing areas (e.g., public parks, roads, trails) and from adjacent properties.

E. Sound: During normal operation, all wind energy systems shall not exceed the sound levels allowed in existing zoning ordinances for the Village. This sound level may be exceeded during short-term events, such as utility outages and storms.

F. Utility Notification: No grid-tied wind energy system shall be installed until evidence has been submitted that the applicant's utility company has been informed of the customer's intent to install an interconnected customer-owned generator.

G. Antennas: Wind Energy Systems installed under this ordinance may also be used to host antennas, so long as the structure is shown to meet the state and local structural code requirements.

H. Perching Opportunities: No Wind Energy Systems shall be so constructed or operated so as to create artificial habitat for raptors or raptor prey. Electrical boxes, perching opportunities, etc., shall to the maximum extent practicable be minimized.

I. Insurance: For all wind energy systems, prior to issuance of a permit, the applicant or property owner shall provide proof of a level of liability insurance adequate to cover damage or injury that might result from the failure of any part or parts of the Wind Energy Facility. This level of insurance shall be maintained throughout the life of the Wind Energy Facility.

J Bonding: For all Wind Energy Systems, a bond shall be posted to cover the costs of decommissioning the Wind Energy System. For Medium and Large Wind Energy Systems, the bond shall be equal to the decommissioning costs laid out in a decommissioning plan. For Small Wind Energy Systems, the bond for a monopole system shall be set at \$500; for all other turbine tower structures, the bond shall be set at \$2,000.

K Large Wind Energy Facilities shall be set back at least 1,000 feet from any Important Bird Area as identified by New York Audubon and from County or State-listed wetlands.

6. Special Site Plan Requirements.

An aerial photograph (from Google Maps for example) illustrating how the site meets set back requirements shall be submitted.

For Medium and Large Scale Wind Energy Facilities, engineering drawings that incorporate the results of a soil study shall be submitted and signed by an engineer licensed in NY State prior to the site plan review. For Small Scale Wind Energy Facilities, signed engineering drawings supported by a soil study are required at the time that a building permit application is submitted; manufacturer drawings will suffice for the site plan review.

A storm water management plan is required for Large Scale wind energy facilities.

A medium and Large Scale Wind Energy Facility applicant shall submit and agree to the performance of a decommissioning plan, with a cost estimate for the decommissioning to be included in the plan. See section 8 for items requiring decommissioning.

7. Site Plan Considerations.

Set back requirements are designed to ensure safety of neighbors and reduce the noise impacts on neighbors.

The visual impact on neighbors is a consideration.

For Large Scale wind energy facilities one should also consider the impact on: 1) agricultural resources, 2) wetlands, 3) wildlife, 4) birds and bats, and 5) visual flicker from the blades.

8. Abandonment of Use / Decommissioning.

A Wind Energy Facility which is not used to produce electricity for 12 successive months shall be

deemed abandoned and shall be dismantled and removed from the property at the expense of the property owner within 6 months after notice from the Village Board of Trustees. Decommissioning shall include removal of wind turbines, tower, and above-ground cabling and electrical components. For Small Wind Energy Facilities, foundations and underground cabling need not be removed. For medium and large Wind Energy Facilities, decommissioning shall also include removal of all below-ground project elements to a depth of 36 inches, access roads, and any other associated facilities, unless the property owner requests in writing that the access roads or other facilities be retained. Disturbed earth shall be graded and reseeded and subject to state and local regulations regarding erosion and sedimentation control. Failure to comply with this section or with any and all conditions that may be attached to the Construction Permit shall constitute grounds for the revocation of the permit by the Village of Freeville and forfeiture of the bond referred to in Section 5J above.

ARTICLE III
Solar Power Facilities

1. Intent.

This Article regulates and provides standards for Solar Power Facilities. The intent of this Article is to encourage the development of Solar Power Facilities while protecting the public health, safety, and community welfare.

2. Permitted Areas.

Small Scale Solar Power Facilities are permitted in all zones. Large Scale Solar Power Facilities are only permitted in agricultural zones in the Village. Large Scale Solar Power Facilities shall not be built in Critical Environmental Areas or Unique Natural Areas. If extensive areas of forest need to be cleared, an environmental impact statement shall be required. Large Scale Solar Power Facilities are prohibited in floodplains or wetlands.

3. Setback Requirements.

Building Mounted Solar Power Facilities shall meet the setback requirements for buildings in the Land Use and Development Codes. Ground based Solar Power Facilities shall meet the setback requirements for accessory structures in the Land Use and Development Codes. Ground based Solar Power Facilities shall be located in side or rear lots, not front lots.

4. Height Requirements.

Building Mounted Solar Power Facilities shall meet the height requirements for buildings in the Land Use and Development Codes. Ground based Solar Power Facilities shall meet the height requirements for accessory structures in the Land Use and Development Codes.

5. Installation and Design

Glare from Large Scale Solar Power Facilities shall not interfere with drivers on state roads.

The system's structure and components shall be painted a non-reflective, unobtrusive color that blends the system and its components into the surrounding landscape to the greatest extent possible and incorporate non-reflective surfaces to minimize any visual disruption.

Exterior lighting on any structure associated with the system shall not be allowed.

All on-site electrical wires associated with the Solar Power Facility shall be installed underground except for "tie-ins" to a public utility company and public utility company transmission poles, towers and lines.

Large Scale solar facility shall be surrounded by a fence at least six feet in height. A sign shall be posted on the fence warning of electrical shock or high voltage and harm therefrom.

6. Special Site Plan Requirements

Large Scale Solar Power Facilities require an aerial photograph (from Google Maps for example) outlining where the facilities shall be located.

Large Scale Solar Power Facilities require engineering drawings by a licensed professional.

Large Scale Solar Power Facilities require a storm water management plan.

A Large Scale solar energy applicant shall submit and agree to the performance of a decommissioning plan, with a cost estimate for decommissioning to be included in the plan. See section 8 for items requiring decommissioning.

7. Site Plan Considerations

For Large Scale Solar Power Facilities one should consider the impact on: 1) agricultural resources, 2) storm water management and runoff 3) wildlife, 4) roadways due to glare from solar panels, and 5) the visual impact on neighbors.

8. Abandonment of Use / Decommissioning.

A Large Scale Solar Power Facility which is not used to produce electricity for 12 successive months shall be deemed abandoned and shall be dismantled and removed from the property at the expense of the property owner within 6 months after notice from the Village Board of Trustees. The decommissioning shall include the removal of the solar energy system and all associated equipment, driveways, structures, buildings, equipment sheds, lighting, utilities, fencing, and gates. Upon removal, the land shall be restored to its previous condition, including but not limited to the seeding and sodding, as appropriate depending upon the season of the work, of exposed soils.

For Large Scale Solar Power Facilities, a bond shall be posted that is equal to the decommissioning costs laid out in a decommissioning plan.