



152.271 ALTERNATIVE ENERGY SYSTEMS.

(A) *Intent.* It is the intent of the Village of Pinckney to promote the effective and efficient use of alternative energy sources such as wind and energy by regulating the placement, design, and installation of these systems to protect the public health, safety, and welfare of its residents.

(B) *On-site wind energy systems (WES).*

(1) On-site wind energy systems are designed to primarily serve the needs of a home, small business, or any other existing or permitted use on a parcel of land. These systems are permitted in all zoning districts, subject to the requirements of this section and all county, state and federal regulations and safety requirements as well as applicable industry standards.

(2) *General requirements.*

(a) *Minimum lot area size.* The minimum lot size for a property to be eligible to have an on-site wind energy system shall be two acres.

(b) *Setbacks.* All wind energy systems must be setback from property lines at a distance equal to or greater than one and one-half times the height of the structure, measured from the base of the structure to the highest reach of its blade.

(c) One wind energy device shall be permitted per lot and located in the rear or side yard.

(d) *Local, state and federal construction and electrical requirements.* On-site wind energy systems shall comply with all applicable state construction and electrical codes and local building permit requirements. The support system, footings and tower shall be constructed in accordance with all applicable building codes governing structural integrity and wind loads.

(e) It shall be the responsibility of the applicant to obtain the appropriate FAA permits for the structure, or to obtain a determination of no significant impact to air navigation from the FAA.

(f) In the case of a wind energy system to be interconnected with the power grid of the local electric utility, the applicant shall provide proof of written notice to the utility of the proposed interconnection and the utility's response thereto. The applicant shall comply with all requirements of the servicing utility if the wind energy system is interfaced with the utility grid. The utility will install appropriate electric metering and the customer will be required to install a disconnecting device adjacent to the electric meter(s).

(g) The applicant must provide a copy of the manufacturer's material safety data sheet(s) which shall include the type and quantity of all materials used in the operation of all equipment including, but not limited to, all lubricants and coolants.



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(h) *Braking system.* The wind energy system shall have an automatic braking, governing, or feathering system to prevent uncontrolled rotation or over speeding.

(i) *Lightning protection.* The wind energy system shall have lightning protection.

(j) *Labeling.* The following information shall be provided in a visible, easily read, and easily accessible location:

1. Maximum power input (kilowatt-kW), rated voltage (volt-V), and rated current output (ampere) of the generator, alternator, and the like. A visible warning sign of high voltage as required by the State Construction Code shall be placed at the base of the structure;

2. Manufacturer's name and address, model number and serial number;

3. Emergency and normal shutdown procedures; and

4. Emergency contact name and telephone number.

(k) *Accessibility.* Towers shall be designed and constructed in such a manner that integrated tower climbing devices are a minimum of 12 feet above the base of the tower and only accessible by using a separate climbing device.

(l) *Visibility of guy wires.* If an on-site wind energy system is supported by guy wires, the wires shall be clearly visible to a height of at least eight feet above the guy wire anchors.

(m) *Color.* Towers and blades shall be a non-reflective, non-obtrusive neutral color such as white, off-white, or gray.

(n) *Minimum ground clearance.* For both horizontal and vertical axis turbines, a wind energy system rotor shall be located on the tower or support such that the minimum blade clearance above ground level is 15 feet.

(o) *Noise.* The maximum level of audible noise permitted to be generated by a wind energy system shall be 50 decibels, as measured on the dBA scale, measured at the property lines nearest the system. An application for a wind energy system shall not be approved unless the applicant demonstrates that the proposed project complies with all noise regulations.

(p) *Placement.* Wind energy systems shall be located in such a manner so as to not generate shadow flicker on any habitable buildings.

(q) *Removal.* When a system has not been used for 180 days or more, the removal of equipment or the cessation of operations (transmission of electrical power) shall be required. The property owner shall immediately apply for any required demolition or removal permits, proceed with, and complete the demolition/removal. If the removal has not been lawfully completed within 60 days, and after at least 30 days written notice, the village may remove or secure the removal of the facility or required portions thereof, with its actual cost and reasonable administrative charge to be drawn, collected and/or enforced from or under the security posted at the time of application.

(r) *Permit required.* A land use permit is required per § [152.023](#).

(C) *Commercial wind energy system (WES).* Commercial wind energy system



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(D) **Solar energy systems.** Building- or ground-mounted private solar energy systems that generate up to but do not exceed the manufacturer's rating of 100 kW to primarily meet the needs of a home, small business, or any other existing or permitted use on a parcel of land are permitted as a permitted accessory use in all zoning districts, subject to the requirements of this section and all county, state and federal regulations and safety requirements as well as applicable industry standards.

(1) *General requirements.*

(a) The exterior surfaces of solar energy systems shall be generally neutral in color and substantially non-reflective of light.

(b) A unit shall be installed or located such that reflected solar radiation or glare shall not be directed onto adjacent building, properties or roadways.

(c) Solar energy systems must be installed in compliance with the National Electric Safety Code, the manufacturer's specifications, and all other applicable codes. A copy of the manufacturer's installation and maintenance instructions must be submitted for review.

(d) If the applicant's intent is to install a customer-owner system that will be interconnected to the power grid, written evidence that the area's electrical utility provider has been notified shall be submitted. Off-grid systems are exempt from this requirement.

(e) A solar energy system shall be permanently and safely attached to the building, structure, or ground. Proof of the safety and reliability of the means of such attachment shall be submitted to the Zoning Administrator/Livingston County Building Department prior to installation.

(f) There shall be no signs on the unit, other than a sign or logo identifying the manufacturer with an area no greater than three square feet, and any necessary safety information signs.

(2) *Building-mounted solar systems.*

(a) Such system may only be attached to a principal building or an accessory building serving the principal use such as a barn, garage, or shed.

(b) No part of the solar energy system erected on a roof shall extend beyond the peak of the roof and not closer than three feet from the edges of the roof or peak in order to maintain accessibility.

(c) If the solar energy system is mounted on a building in an area other than the roof, no part of the system shall extend beyond the wall on which it is mounted.

(d) No part of a solar energy system mounted on a roof shall extend more than two feet above the surface of the roof. When such units are mounted to a



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flat roof, they shall not project higher than three feet above the building height and shall be screened with a wall at least one foot taller than the unit. In no instance shall a roof-mounted unit exceed the maximum allowable height for the zoning district in which it is located.

(e) A solar energy system shall be only of such weight as can safely be supported by the structure. Proof thereof, in the form of certification by a qualified person, shall be submitted to the Zoning Administrator/Livingston County Building Department prior to installation.

(f) A wall-mounted solar energy system shall not extend further than ten feet from the building wall, may not extend into a required yard and may not exceed the height of the building wall to which it is attached. Such units may only be attached to one side or rear building façade.

(g) In the event that a roof or building mounted solar energy system has been abandoned (not in operation) for a period of one year, it shall be removed by the property owner within six months from the date of abandonment.

(3) *Ground-mounted solar energy systems.*

(a) Ground-mounted solar energy systems shall be located only in the rear yard and shall meet the side and rear yard setback requirements applicable in the zoning district in which the solar energy system will be located.

(b) A ground-mounted solar energy system shall not exceed 15 feet in height, measured from the ground at the base of the unit to the highest reach of the solar panels.

(c) Ground-mounted solar energy systems may not occupy more than 5% of the parcel upon which it is located up to 1,500 square feet.

(d) All power transmission lines shall be underground.

(e) There shall be a greenbelt screening around any ground-mounted solar energy system and equipment associated with the system to obscure the solar energy system from adjacent residences. The greenbelt shall consist of shrubbery, trees or other noninvasive plant species that provide a visual screen. In lieu of a planting greenbelt, a decorative fence (meeting the requirements of this section applicable to fences) may be used.

(f) In the event that a ground-mounted solar energy system has been abandoned (not in operation) for a period of one year, it shall be removed by the property owner within six months from the date of abandonment.

(E) *Commercial solar energy system.* Commercial solar energy systems on any parcels located in any zoning district in the Village of Pinckney is prohibited. This limitation is to protect the public health and safety and the aesthetic quality of the Village of Pinckney,
(Ord. 167, passed 1-9-2023)