

ORDINANCE NO. 23-015

AN ORDINANCE ADDING CHAPTER 157 SOLAR ENERGY SYSTEM REGULATIONS OF THE CITY OF MONMOUTH CODE OF ORDINANCES AND DECLARING THAT THIS ORDINANCE IS IN FULL FORCE AS PROVIDED BY LAW.

Section 1:

CHAPTER 157: Solar Energy System Regulations

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§157.000 General Provisions – Purpose and Intent

The purpose of this chapter is to establish reasonable and uniform regulations for the location and installation of solar energy systems on property within the limits of the City of Monmouth.

§157.010 Definitions

For the purpose of this chapter the following definitions shall apply unless the context clearly indicates or requires a different meaning.

Glare. The effect produced by light with an intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.

Photovoltaic Cell. A semiconductor device that converts solar energy directly into electricity.

Solar Collector. A professionally manufactured device, structure or part of a device or structure for which the primary purpose is to transform solar radiant energy into thermal, mechanical, or electrical energy.

Solar Collector Surface. Any part of a solar collector that absorbs solar energy for use in the collector's energy transformation process. Collector surface does not include frames, supports and mounting hardware.

Solar Energy System, Building Mounted. A solar energy system, in which all parts are professionally mounted on the roof of a principal building or accessory structure. A building mounted solar energy system includes building integrated solar energy systems, flush-mounted solar energy systems and non-flush mounted solar energy systems.

Solar Energy System, Building Integrated. A building mounted solar energy system that is an integral part of a principal or accessory building, rather than a separate mechanical device, replacing or substituting for an architectural or structural part of the building. Building integrated solar energy systems include, but are not limited to, photovoltaic cell or hot water systems that are contained within roofing materials, skylights, shading devices, and similar architectural components.

Solar Energy System, Flush Mounted. A building mounted solar energy system that is mounted to a finished roof surface where the solar collector, once installed, projects no further than six (6) inches in height beyond the roof surface.

Solar Energy System, Non-Flush Mounted. A building mounted solar energy system that is mounted to a finished roof surface where the solar collector, once installed, projects more than six (6) inches in height beyond the roof surface.

Solar Energy System, Ground Mounted. A free-standing solar energy system that is placed, affixed, or mounted to the ground.

Solar Energy System, Self-Contained. A professionally manufactured device that utilizes solar collectors to produce small amounts of power that are generated exclusively for the device. A self-contained solar energy system is typically located in areas that are not in close proximity to a utility power source. Examples of these types of self-contained solar energy systems include but are not limited to: light poles in parks for security or safety reasons, pedestrian street crossing signs that alert oncoming traffic of the crossing, natural resource observation systems (such as tracking flood level depths), pumps that aerate an isolated pond, and attic fans mounted on a roof that are used for ventilation purposes.

Solar Energy System. A professionally manufactured system accessory to the principal use that utilizes solar collectors to convert solar energy from the sun into thermal, mechanical, or electrical energy for storage and use and is intended to primarily reduce on-site consumption of utility power.

Supply Side Connection. A bolt on or clamp on connector placed on the bushbars or conductors on the utility side of the main service disconnect.

#### §157.015 Solar Energy Systems Installers Certification

Individuals engaged in the business of installing solar energy systems shall show proof of valid Distributed Generation Installer Certification as required by the Illinois Commerce Commission. Individuals having acquired a Distributed Generation Installer Certification may perform work required to install said solar energy systems after receiving and paying for an approved permit to install.

#### §157.020 Permitted Accessory Use – Non-Residential

Solar energy systems are a permitted accessory use in non-residential zoning districts where structures are allowed, subject to certain requirements as set forth below:

- A. Building or roof-mounted solar energy systems shall not exceed the maximum height of twelve (12) feet from where collectors are mounted and shall have a three (3) foot perpendicular unobstructed pathway for every 60 feet of solar panels; and all roof vents, chimneys, and other protrusions must be accessible without removal of solar panels; and no solar panel shall be placed closer than three (3) feet from any HVAC equipment.
- B. The collector surface and mounting devices for roof-mounted solar energy systems shall be set back a minimum of three (3) feet from the edge, ridge, and eave of the roof. Exterior piping for solar hot water systems shall be allowed to extend beyond the perimeter of the building. Solar collectors mounted on the sides of buildings and serving as awnings are considered to be building-integrated systems but cannot extend more than four (4) feet from the wall and cannot extend over the property line nor mounted on a front wall facing a public right-of-way, nor have a downward pitch.
- C. Solar carports shall not exceed 20 feet in height.
- D. Ground-mounted solar energy systems are only permitted in the rear yard and shall not extend within 12 feet of the side-yard or rear-yard or the setback requirements of the applicable zoning district, whichever is greater; shall not exceed twelve (12) feet in height and shall be within a perimeter fence six (6) feet in height with no barbed wire or woven wire design.
- E. Ground-mounted systems in non-residentially zoned properties shall not exceed a total collector area that is more than half the building footprint of the principal structure and shall count toward accessory structure limitations.

F. Solar energy systems will require a building permit and shall provide a site plan showing the location of the system on the building or on the property for a ground-mounted system, including the property lines, and horizontal and vertical elevations. Variances to design requirements will not be granted.

G. Electric solar energy system components must have a UL or equivalent listing and solar hot water systems must have an SRCC rating.

H. Solar energy systems shall comply with the City's building code, consistent with the State of Illinois Building Code, the Illinois State Electric Code, and the National Electric Code applicable.

I. Solar thermal systems shall comply with applicable Illinois State Plumbing Code requirements and HVAC related requirements.

J. All grid-intertie solar energy systems shall comply with the interconnection requirements of the electric utility.

K. Any ground-mounted solar energy system can NOT be the principal use of the property where said ground-mounted solar energy system is installed.

#### §157.025 Permitted Accessory Use – Residential

Only roof-mounted solar energy systems are a permitted accessory use in residential zoning districts subject to the following regulations:

A. Ground-mounted systems are not allowed on any residentially zoned properties.

B. Roof-mounted solar energy systems including all collector panels and mounting devices:

- (1) shall be a minimum of three (3) feet from roof edges, ridges, and eaves;
- (2) shall have a three (3) foot wide perpendicular unobstructed pathway for every 50 feet of solar panels;
- (3) all roof vents, chimneys, or other protrusions shall be accessible without removal of solar panels; and
- (4) no solar panels shall be placed closer than three (3) feet from any HVAC equipment.

On dormer, hip, gambrel and intersecting roofs, the setback from edges and ridges may be twelve (12) inches, but still must be three (3) feet from eaves.

C. Solar panels on residential buildings shall not exceed the height of the ridge of the roof section upon which it is mounted, and no solar panel shall differ by more than ten degrees (10°) from the pitch of the roof upon which it is mounted.

D. Exterior piping for solar hot water systems shall be allowed to extend beyond the perimeter of the building. Solar collectors mounted on the sides of residential buildings shall not extend more than two (2) feet from the wall upon which they are mounted and shall not have a downward pitch.

E. Solar energy systems in residential districts shall be designed to minimize visual impacts from the public right-of-way.

F. Roof-mounted systems that are visible from the nearest edge of the front right-of-way shall have the same finished pitch as the roof and be no more than ten inches above the roof.

G. Solar energy systems will require a building permit and shall provide a site plan showing the location of the system on the building or roof.

H. Electric solar energy system components must have a UL or equivalent listing and solar hot water systems must have a SRCC rating.

I. Solar energy systems shall comply with the City's building code, the State of Illinois Building Code, the Illinois State Electric Code, and applicable provisions of Illinois State Plumbing Code, the National Electric Code and the International Fire Code.

J. All grid-intertie solar energy systems shall comply with the interconnection requirements of the electric utility.

#### §157.030 Permit Required and Fees

A. Permits issued by the Zoning/Building Department must be obtained prior to the installation of any solar energy system.

B. The fees for said permits are as follows:

0-4 Kilowatts (kW-dc)	\$75.00
5-10 Kilowatts (kW-dc)	\$150.00
11-50 Kilowatts (kW-dc)	\$300.00
51-100 Kilowatts (kW-dc)	\$500.00
101-500 Kilowatts (kW-dc)	\$1,000.00

501-1000 Kilowatts (kW-dc)	\$3,000.00
1001-2000 Kilowatts (kW-dc)	\$5,000.00

#### §157.035 General Regulations

- A. All solar energy systems must be at least 30 feet from places of worship, daycare facilities, libraries, community centers, nonparticipating residential units, and public rights-of-way.
- B. Ground-mounted solar energy systems that are the principal use of the property are not allowed within the city limits of Monmouth.
- C. Solar reflectors or any other apparatus designed to reflect sunlight towards a solar collection panel for the purpose of increasing the amount of sunlight received, are prohibited.
- D. Solar energy systems shall be installed according to manufacturer specifications and in accordance with all applicable City of Monmouth, building, electrical, fire, and other codes.
- E. Solar energy systems shall have a lockable, utility accessible, load breaking, manual disconnect switch, which can be utilized to connect and/or disconnect all electric solar energy system components and shall comply with the interconnection requirements of the electric utility.
- F. All solar energy systems shall have caution labels installed and/or placed on said solar energy system as required by the National Electric Code.
- G. Building integrated solar energy systems and/or flush-mounted solar energy systems are permitted to be installed on any roof area. The highest edge of any solar panel on a pitched roof shall not exceed the height of the ridge of the roof section to which the collector is mounted and all panels shall be installed at an angle that does not differ from the angle of the roof pitch by more than ten degrees (10°).
- H. Ground-mounted solar energy systems are not permitted on properties zoned Residential. All non-flush mounted solar energy systems shall not extend more than ten (10) feet from where they are mounted and shall not project/extend beyond the exterior wall of any building on which it has been installed.
- I. No mature live trees shall be removed to accommodate the installation of a solar energy system.

J. Deviations from these regulations shall not be allowed nor be entitled to consideration under a variance request.

K. Solar energy system self-contained units are allowed in any zoned area provided they are not left out more than forty-eight (48) continuous hours.

Section 2:

In all other respects, Chapter 157 of the Monmouth Code of Ordinances previously enacted shall remain in full force and effect.

Section 3:

This ordinance shall be in full force and effect ten (10) days after this due publication in pamphlet form, passage and approval thereof as provided by law.

PASSED this \_\_\_\_ day of \_\_\_\_\_, A.D., 2023.

APPROVED this \_\_\_\_ day of \_\_\_\_\_, A.D., 2023.

\_\_\_\_\_  
MAYOR

ATTESTED:

\_\_\_\_\_  
CITY CLERK

Ayes: \_\_\_\_\_

Nays: \_\_\_\_\_

Absent or not voting: \_\_\_\_\_