

ORDINANCE NO. 23-007

AN ORDINANCE ADDING CHAPTER 157 SOLAR 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 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, Large. A solar energy system that contains multiple solar collectors and is primarily used to produce energy to be sold commercially.

Solar Energy System, Self-Contained. A professionally manufactured device that utilizes solar collector(s) 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, Small. 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. Energy produced in excess of on-site consumption may be sold back to the electric utility service provider that serves the proposed site for use with the existing energy grid.

Supply Side Connection. A bolt on or clamp on connector placed in load center before Main breaker of supply power to load center.

§157.015 Solar 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 allowed height of the applicable zoning district.

B. Ground or pole-mounted solar energy systems shall not exceed 15 feet in height when oriented at maximum tilt.

C. Solar carports shall not exceed 20 feet in height.

D. Solar energy systems must meet the accessory structure setback for the applicable commercial or industrial zoning district associated with the lot on which the system is located.

E. The collector surface and mounting devices for roof-mounted solar energy systems shall not extend beyond the exterior perimeter of the building on which the system is mounted. 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 and are regulated as awnings.

F. Ground-mounted solar energy systems are only permitted in the rear yard and shall not extend into the side-yard or rear-yard setback and shall be within a perimeter fence six (6) feet in height with no barbed wire or woven wire design.

G. 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.

H. Solar 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.

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

J. Solar energy systems shall comply with the City's building code, consistent with the State of Illinois Building Code, and solar thermal systems shall comply with HVAC-related requirements.

K. All photovoltaic systems shall comply with the Illinois State Electric Code.

L. Solar thermal systems shall comply with applicable Illinois State Plumbing Code requirements.

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

§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. Building or roof-mounted solar energy systems shall not exceed the maximum allowed height.

C. The collector surface and mounting devices for roof-mounted solar energy systems shall not extend beyond the exterior perimeter of the building on which the system is mounted. 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 and are regulated as awnings.

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

E. 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.

F. Solar energy systems using a reflector to enhance solar production shall minimize glare from the reflector affecting adjacent or nearby properties.

G. Solar 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, consistent with the State of Illinois Building Code, and solar thermal systems shall comply with HVAC-related requirements.

J. Photovoltaic systems shall comply with the Illinois State Electric Code.

K. Solar thermal systems shall comply with applicable Illinois State Plumbing Code requirements.

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

§157.030 Principal Uses

A. Ground-mounted solar energy systems that are the principal use of the property are only allowed in industrially zoned districts and must be surrounded by perimeter fencing no higher than six (6) feet and without barbed wire or woven wire design.

B. The same property line setback requirements shall apply to solar systems as for buildings or structures in the industrial zoning district in which the system is located.

C. Solar systems shall be set back 150 feet from the ROW centerline of all public rights-of-way.

D. The setback distance shall be measured from the edge of the solar energy system array, excluding security fencing, screening, or berm.

E. Community-and large-scale solar shall be screened from existing residential dwellings. A screening plan shall be submitted that identifies the type and extent of screening and shall be required along all property lines.

§157.035 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

C. The City of Monmouth Fire Department shall review said application for an Electrical Permit to verify that adequate roof access will be allowed for emergency personnel in the case of an emergency.

§157.040 General Regulations

A. 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.

B. Small 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. The manual disconnect switch shall be located not more than four (4) feet from the building's Electric Service Meter. The manual disconnect switch shall not be obstructed

from access in any manner, including, but not limited to, landscaping, shrubs, trees, terraces, garages, carports, or fencing.

C. All small solar energy systems shall have caution labels installed and/or placed on said small solar energy system as required by the National Electric Code.

D. Building integrated solar energy systems and/or flush-mounted solar energy systems are permitted to be installed on any roof area. The solar collector surface area shall not cover more than 60% of any roof area upon which the solar collectors are mounted and shall be set back on the roof edges and ridge. Glare from solar collector surfaces shall be oriented away from neighboring windows.

E. Ground-mounted solar energy systems are not permitted on properties zoned Residential.

Small solar energy systems shall conform to the height regulations of the zoning district in which the property is located. Non-flush mounted solar energy systems shall not extend above the highest point on the roof line and shall not project/extend beyond the exterior wall of any building on which it has been installed.

F. For properties zoned Business, Manufacturing or Public Service, small solar energy systems shall conform to the height regulations of the zoning district in which the property is located. Non-flush mounted solar energy systems shall not extend above the highest point on the roof line or a parapet wall and shall not project/extend beyond the exterior wall of any building on which said small solar energy system has been installed.

G. No mature trees shall be removed to accommodate the installation of a solar energy system.

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

I. Solar energy systems shall have a lockable, utility accessible, load breaking, manual disconnect switch located within four (4) feet from the electric service meter and unobstructed.

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: _____