

ORDINANCE # 1601

**An Ordinance Regulating the Siting of Small-Scale Solar Systems**

**1. Purpose & Intent**

A. Solar energy is a renewable and non-polluting energy resource that can prevent fossil fuel emissions and reduce residential and commercial energy loads. Energy generated from solar energy systems can be used to offset energy demand on the grid where excess solar power is generated.

B. The use of solar energy equipment for the purpose of providing electricity and energy for heating and/or cooling is a priority and is a necessary component of the City of Galva's current and long-term energy goals.

C. The ordinance aims to promote the accommodation of solar energy systems and equipment and the provision for adequate sunlight and convenience of access necessary therefor.

**2. Definitions**

**ACCESSORY STRUCTURE**

A structure, the use of which is customarily incidental and subordinate to that of the principal building and is attached thereto, and is located on the same lot or premises as the principal building.

**ALTERNATIVE ENERGY SYSTEMS**

Structures, equipment, devices or construction techniques used for the production of heat, light, cooling, electricity or other forms of energy on site and may be attached to or separate from the principal structure.

**BUILDING-INTEGRATED PHOTOVOLTAIC (BIPV) SYSTEMS**

A solar energy system that consists of integrating photovoltaic modules into the building structure, such as the roof or the façade and which does not alter the relief of the roof.

**COLLECTIVE SOLAR**

Solar installations owned collectively through subdivision homeowner associations, college student groups, "adopt-a-solar-panel" programs, or other similar arrangements.

#### EXPEDITED REVIEW

The grant of a priority status to an application that results in the review of the application ahead of applications filed prior thereto, including applications which may be currently under review by the City of Galva.

#### FLUSH-MOUNTED SOLAR PANEL

Photovoltaic panels and tiles that are installed flush to the surface of a roof and which cannot be angled or raised.

#### FREESTANDING OR GROUND-MOUNTED SOLAR ENERGY SYSTEM

A solar energy system that is directly installed in the ground and is not attached or affixed to an existing structure.

#### NET-METERING

A billing arrangement that allows solar customers to get credit for excess electricity that they generate and deliver back to the grid so that they only pay for their net electricity usage at the end of the month.

#### PERMIT GRANTING AUTHORITY

The municipal authority charged with granting permits for the operation of solar energy systems.

#### PHOTOVOLTAIC (PV) SYSTEMS

A solar energy system that produces electricity by the use of semiconductor devices, called photovoltaic cells that generate electricity whenever light strikes them.

#### QUALIFIED SOLAR INSTALLER

A person who has skills and knowledge related to the construction and operation of solar electrical equipment as evidenced by a Distributed Generation Certification through the Illinois Commerce Commission under Section 16-128A of the Public Utilities Act, or a qualified electrician working with a subcontractor who has this certification.

#### ROOFTOP OR BUILDING MOUNTED SOLAR 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 south at an optimal angle.

#### SMALL-SCALE SOLAR

For purposes of this Ordinance, the term “small-scale solar” refers to solar photovoltaic systems that produce up to 25 kilowatts (kW) per hour of energy in areas zoned R-1 Residential and up to 50 kilowatts (kW) for all other Zones, or solar-thermal systems which serve the building to which they are attached, and do not provide energy for any other buildings.

## SOLAR ACCESS

Space open to the sun and clear of overhangs or shade. *While it would be optimal if installed solar collectors were not subsequently blocked by a neighbor's construction, landowner's possess no common law right to unobstructed sunlight. Thus, laws that prevent property owners from making use of their property in ways which would block sunlight to neighboring solar collectors may be seen as seizing private airspace rights. Thus, one possible resolution would be if landowners would purchase airspace easements or covenants from their neighbors.*

## SOLAR COLLECTOR

A solar photovoltaic cell, panel, or array, or solar hot air or water collector device, which relies upon solar radiation as an energy source for the generation of electricity or transfer of stored heat.

## SOLAR EASEMENT

An easement recorded with the County Clerk's office, the purpose of which is to secure the right to receive sunlight across real property of another for continued access to sunlight necessary to operate a solar collector. *Solar easement agreements are required to contain at a minimum, information describing the easement location and the vertical and horizontal angles over which the easement extends, provisions governing the granting and termination of the easement, and provisions for compensation to either party in the event that interference occurs.*

## SOLAR ENERGY EQUIPMENT/SYSTEM

Solar collectors, controls, energy storage devices, heat pumps, heat exchangers, and other materials, hardware or equipment necessary to the process by which solar radiation is collected, converted into another form of energy, stored, protected from unnecessary dissipation and distributed. Solar systems include solar thermal, photovoltaic and concentrated solar.

## SOLAR PANEL

A device for the direct conversion of solar energy into electricity.

## SOLAR POWER FAST-TRACK PROGRAM

A program to expedite all applications for commercial and residential solar panel installation to encourage the use of reliable and clean renewable energy.

## SOLAR STORAGE BATTERY

A device that stores energy from the sun and makes it available in an electrical form.

## SOLAR-THERMAL SYSTEMS

Solar thermal systems directly heat water or other liquid using sunlight. The heated liquid is used for such purposes as space heating and cooling, domestic hot water, and heating pool water.

### **3. Applicability**

- A. The requirements of this Ordinance shall apply to all Small Scale solar energy systems (residential, commercial, multi-family and condominium) modified or installed after the effective date of this Ordinance.
- B. Solar energy systems for which a valid permit has been properly issued or for which installation has commenced prior to the effective date of this article shall not be required to meet the requirements of this Ordinance except in accordance with §§5(D), (E) and (F).
- C. All solar energy systems shall be designed, erected and installed in accordance with all applicable codes, regulations and standards.
- D. Solar energy collectors shall be permitted only to provide power for use by owners, lessees, tenants, residents, or other occupants of the premises on which they are erected, but nothing contained in this provision shall be construed to prohibit “collective solar” installations or the sale of excess power through a “net billing” or “net-metering” arrangement in accordance with Illinois law or Federal statute.

### **4. Permitting**

- A. No Small Scale solar energy system or device shall be installed or operated in the City of Galva except in compliance with this article.
- B. To the extent practicable, the accommodation of solar energy systems and equipment and the protection of access to sunlight for such equipment shall be encouraged in the application of the various review and approval provisions of the City of Galva.
- C. Rooftop and Building-Mounted Solar Collectors: Rooftop and building mounted solar collectors are permitted in all zoning districts in the City of Galva subject to the following conditions:
  - 1. Building permits shall be required for installation of all rooftop and building-mounted solar collectors, except:
  - 2. Any height limitations of the City of Galva Building Code shall not be applicable to solar collectors provided that such structures are erected only to such height as is reasonably necessary to accomplish the purpose for which they are intended to serve, and that such structures do not obstruct solar access to neighboring properties.

3. Placement of solar collectors on flat roofs shall be allowed as of right in non-historic districts, provided that panels do not extend horizontally past the roofline.
- D. Building-Integrated Photovoltaic (BIPV) Systems: BIPV systems are permitted outright in all zoning districts.
- E. Ground-Mounted and Free Standing Solar Collectors: Ground-mounted and free standing solar collectors are permitted as accessory structures in all zoning districts of the City of Galva subject to the following conditions:
1. Building permits are required for the installation of all ground-mounted solar collectors.
  2. The location of the solar collector meets all applicable setback requirements for accessory structures in the zoning district in which it is located.
  3. The height of the solar collector and any mounts shall not exceed twenty (20) feet when oriented at maximum tilt.
  4. Solar energy equipment shall be located in a manner to reasonably minimize view blockage for surrounding properties and shading of property to the north, while still providing adequate solar access for collectors.
  5. Freestanding solar energy collectors shall be screened when possible and practicable through the use of architectural features, earth berms, landscaping, or other screening which will harmonize with the character of the property and surrounding area.
- F. Solar-Thermal Systems: Solar-thermal systems are permitted in all zoning districts subject to the following condition:
1. Building permits are required for the installation of all solar-thermal systems.
- G. Solar energy systems and equipment shall be permitted only if they are determined by the City of Galva not to present any unreasonable safety risks, including, but not limited to, the following:
1. Weight load
  2. Wind resistance

3. Ingress or egress in the event of fire or other emergency.

H. Installations in designated historic districts as shall require a certificate of appropriateness from the City of Galva unless such installations are not visible from the street.

## 5. Safety

- A. All solar collector installations must be performed by a qualified solar installer.
- B. Prior to operation, electrical connections must be inspected by an appropriate electrical inspection person or agency, as determined by the City of Galva. Nothing in this Section shall prevent the Galva Fire Chief or his designee(s) from inspecting prior to or after operation of the system.
- C. Any connection to the public utility grid must be inspected by the appropriate public utility.
- D. Solar energy systems shall be maintained in good working order.
- E. Rooftop and building-mounted solar collectors shall meet NFPA 1 and Building Code standards.
- F. If solar storage batteries are included as part of the solar collector system, they must be placed in a secure container or enclosure meeting the following minimum requirements of the NEC and when no longer used shall be disposed of in accordance with the laws and regulations of the State of Illinois and other applicable laws and regulations:
  - 1. Batteries other than lead-acid batteries must be listed (NEC 480.3)
  - 2. A disconnect means is provided for all ungrounded conductors derived from a stationary battery system over 50 volts AC or 60 volts DC. (NEC 480.7 & 706.7)
  - 3. Wiring and connections of inverters, PV source circuits, battery connections, etc., and all interconnections are performed by qualified personnel. (690.4(C))
  - 4. High interrupt, listed, DC rated fuses or circuit breakers are used in battery circuits. The AIC is at least 20,000 amps. (NEC 706.21(C) & 110.9)

G. If a solar collector ceases to perform its originally intended function for more than 12 consecutive months, the property owner shall remove the collector, mount and associated equipment by no later than 90 days after the end of the twelve-month period.

**6. Appeals**

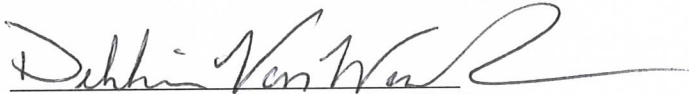
A. If a building permit for a solar energy device is denied because of a conflict with other goals of the City of Galva, the applicant may seek relief from the Zoning Board of Appeals, which shall regard solar energy as a factor to be considered, weighed and balanced along with other factors.

PASSED by the City Council this 23<sup>rd</sup> day of July, 2018.


AYES:

NAYS:

PRESENT:

  
Debbie VanWassenhove, City Clerk

APPROVED by the Mayor this 23<sup>rd</sup> day of July, 2018.

  
Richard Nordstrom, Mayor

CERTIFICATE OF PUBLICATION IN PAMPHLET FORM

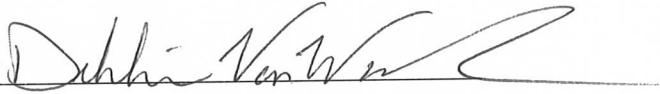
I, Debbie VanWassenhove, certify that I am the duly elected and acting Municipal Clerk of the City of Galva, Henry County, Illinois.

I certify that on the 23<sup>rd</sup> day of July, 2018, the corporate authorities of the City of Galva passed and approved Ordinance No. 1601, entitled "**An Ordinance Regulating the Siting of Small-Scale Solar Systems,**" which provided by its terms that it should be published in pamphlet form.

The pamphlet form of Ordinance No. 1601 was prepared, and a copy of such Ordinance was posted in the Galva Administration Building commencing on the 23<sup>rd</sup> day of July, 2018, and continuing for at least ten (10) days thereafter. Copies of such Ordinance were also available for public inspection upon request at the Office of the City Clerk.

DATED at Galva, Illinois, this 23<sup>rd</sup> day of July, 2018.

(SEAL)



Debbie VanWassenhove