

ORDINANCE NO. 97

AN ORDINANCE ESTABLISHING SOLAR ENERGY WITHIN THE CITY OF BROWNTON

The City Council of the City of Brownton ordains:

Section 1. Establishment

Brownton ("City") believes it is in the public interest to encourage renewable energy systems that have a positive impact in energy conservation with limited adverse impact on the community. While Brownton strongly encourages increased energy conservation and improved energy efficiency, the city also finds that increased use of appropriate renewable energy systems will be an important part of improving urban sustainability.

The renewable energy regulations are intended to supplement existing zoning ordinances and land use practices and ensure these systems are appropriately designed, sited, and installed. These regulations are in place to balance the need to improve energy sustainability through increased use of renewable energy systems with concerns for preservation of public health, welfare, and safety, as well as environmental quality, visual and aesthetic values, and existing neighborhood social and ecological stability.

Section 2. Definitions

ACTIVE/SOLAR ENERGY EQUIPMENT/SYSTEM

A solar energy system whose primary purpose is to harvest energy by transforming solar energy into another form of energy or transferring heat from a collector to another medium using mechanical, electrical, or chemical means.

BUILDING-INTEGRATED PHOTOVOLTAIC (BIPV) SYSTEMS

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

FREESTANDING OR GROUND-MOUNTED SOLAR ENERGY SYSTEM

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

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 and installations and has received safety training on the hazards involved. Such training shall include the proper use of special precautionary techniques and personal protective equipment, as well as the skills and techniques necessary to distinguish exposed energized parts from other parts of electrical equipment and to determine the nominal voltage of exposed live parts.

ROOF OR BUILDING MOUNTED SOLAR SYSTEM

A solar energy 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.

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 PANEL

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

SOLAR ENERGY SYSTEM

A set of devices whose primary purpose is to provide for the collection, storage, and distribution of solar energy for space heating cooling, electricity generation, or water heating.

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.

Section 3. Permits and Standards

A. Rooftop, Building-Mounted, and BIPV Solar Collectors. Rooftop, building-mounted, and BIPV solar collectors are permitted in the Industrial (I) and Heavy Commercial - Light Industrial (C-2) zoning districts in the City. Only BIPV Solar Collectors are allowed in One Family Residential (R-1) and Multi-Family Residential (R-2) districts. All solar collectors are subject to the following conditions:

1. Building permits are required for installation of all rooftop, building-mounted, and BIPV solar collectors.
2. Rooftop, building-mounted, and BIPV solar collectors shall be installed in accordance with the Minnesota State Building and Electrical Codes and shall not occupy more than 75% of the area of the roof plane it is affixed to.
3. Rooftop, building-mounted, and BIPV solar collectors on roofs with slopes greater than two units vertical in 12 units horizontal shall be mounted parallel to the plane of the roof, shall not extend more than one foot above the plane of the roof, and shall not be located any closer than three feet from any side or bottom edge of the roof.
4. Rooftop, building-mounted, and BIPV solar collectors on roofs with slopes of two units vertical in 12 units horizontal or less shall not project more than four feet above the plane of the roof and there shall be a minimum six-foot wide clear perimeter around the edges of the roof.

B. Ground-Mounted and Free-Standing Solar Collectors. Ground-mounted and free-standing solar collectors are permitted as accessory structures in the AG, C-1, C-2 and I zoning districts in the City, 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 shall not be closer than 15 feet to a side or rear lot line, and shall not be located closer than 100 feet to an existing adjacent residence.

1. The solar collector shall not exceed 10% lot coverage or 10,000 square feet, whichever is less. The square footage of the ground mounted collector is calculated by the area encumbered by the outermost measurements of the solar equipment layout.
 3. The height of the solar collector and any mounts shall not exceed 15 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. 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.
 6. Solar energy systems are to be located in the rear yard only.
 7. Solar energy systems may not be located within 150 feet of an adjoining residential district.
- C. Wholesale Solar Energy Systems. Wholesale systems are prohibited within the corporate limits of the City of Brownton.
- D. Solar-Thermal Systems. Solar-thermal systems are permitted in all zoning districts subject to the following condition: Building permits are required for the installation of all solar-thermal systems.

Section 4. Planning, Design, and Compliance

A. Plan Applications

Plan applications for solar energy systems shall be accompanied by to-scale horizontal and vertical (elevation) drawings. The drawings must show the location of the system on the building. All drawings are subject to approval by the City Building Inspector.

B. Plan Approvals

Applications that meet the design requirements of this ordinance and do not require an administrative variance shall be granted administrative approval by the zoning official and shall not require Planning Commission review. Plan approval does not indicate compliance with Building Code or Electric Code.

C. Compliance with Building Code – All active solar energy systems shall meet approval of local building code officials consistent with the State of Minnesota Building Code, and solar thermal systems shall comply with the HVAC-related requirements of the Energy Code.

D. Compliance with State Electric Code – All photovoltaic systems shall comply with the State of Minnesota Electric Code.

E. Utility Notification – The owner of a solar energy system that will physically connect to a house or other building's electrical system and/or the electric utility grid must enter into a signed interconnection agreement with the utility prior to the issuance of a building permit.

- F. **Feeder Lines** – All power exterior electrical or other service lines must be buried below the surface of the ground.
- G. **Exemptions** – Building integrated solar energy systems are exempt from the requirements of this section and shall be regulated as any other building element.

Section 5. Safety

- H. Solar energy systems and equipment shall be permitted only if they are determined by the City and its City Building Inspector and/or City Engineer not to present any unreasonable safety risks, including, but not limited to, the following:
 - 1. Weight load
 - 2. Wind resistance
 - 3. Ingress (entrance) or egress (an exit) in the event of fire or other emergency.
- I. All solar collector installations must be performed by a qualified solar installer.
- J. Solar energy system components shall be certified by Underwriters Laboratories Inc., and the Solar Rating and Certification Corporation. The City reserves the right to deny a building permit for proposed solar energy systems deemed to have inadequate certification.
- K. Prior to operation, electrical connections must be inspected by an appropriate electrical inspection person or agency as determined by the City.
- L. Any connection to the public utility grid must be inspected by the appropriate public utility.
- M. Solar energy systems shall be maintained in good working order.
- N. Building-mounted solar collectors shall meet Minnesota's Fire Safety Code and Building Code standards.
- O. 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 requirements of the Minnesota State Building Code when in use and when no longer used shall be disposed of in accordance with current laws and regulations.

Section 6. Appeals

- A. If an individual is found to be in violation of the provisions of this Ordinance as determined by the Electric Commissioner of the City of Brownton or his or her designee, the property owner has a right to appeal the decision of the Electric Commissioner or his or her designee to a Review Panel by requesting a hearing in writing within 14 days of the Notice of violation. The written request must be made to the Electric Commissioner of the City of Brownton or his or her designee. The Review Panel shall consist of two council members as appointed by the Mayor and the Planning Commission Chairperson. The Panel will schedule a hearing and may call witnesses and review documents as needed to make a determination of the issue. The property owner shall have the right to present evidence on their behalf and cross-examine witnesses. A simple majority of the members of the Panel is necessary to uphold the violation. The burden of proof is preponderance

of the evidence. The decision of the Panel shall be in writing with 10 days of the hearing.

- I. If a building permit for a solar energy device is denied because of a conflict with other goals of the City, the applicant may seek relief by appealing to the City's Planning Commission, which shall regard solar energy as a factor to be considered, weighed and balanced along with other factors.

Section 7. Abandonment

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. Failure to comply may cause the City to issue a civil penalty.

This ordinance shall take effect and be in force from and after its passage and publication.

Adopted this 4th day of May, 2021.

Norman Schwarze, Mayor

Attest:

Lori Cacka, City Clerk

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