

AMENDMENT TO PERMIT SOLAR ENERGY SYSTEMS

For Douglass Township Planning Commission
Public Hearing August 28th, 2019

TOWNSHIP OF DOUGLASS
COUNTY OF MONTCALM, MICHIGAN

At a regular meeting of the Township Board of Douglass Township held in the Township Hall at
3521 West McBride Road on Sept 4th, 2019, at 7:00 P.M.

PRESENT:

ABSENT:

The following ordinance was offered for adoption by Township Board Member _____, and
was seconded by Township Board Member _____:

**AN ORDINANCE TO PERMIT AND REGULATE
THE ESTABLISHMENT OF SOLAR ENERGY SYSTEMS
IN DOUGLASS TOWNSHIP**

THE TOWNSHIP OF DOUGLASS ORDAINS:

SECTION 1 Chapter 2, General Provisions, is hereby amended to **ADD** Section 2.20, Solar Energy Systems, to read as follows:

SECTION 2.20 Solar Energy Systems (SES)

A. **Purpose.** Douglass Township desires to promote the effective and efficient use of solar energy systems (SES) subject to reasonable regulations. It is the intent of the Township to permit these systems under certain circumstances by regulating the siting, design and installation of such systems to protect the public health, safety, and welfare, and to ensure compatibility of land uses in the vicinity of solar energy systems.

B. Definitions

1. Array: Any number of electrically connected photovoltaic (PV) modules providing a single electrical output.
2. 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.

3. Ground-Mounted Solar Energy System: A solar energy system that is installed directly in the ground and is not attached or affixed to an existing structure.
4. Onsite Solar System: A solar energy system mounted on a building or on the ground and located on a parcel containing a principal use. An onsite solar system is considered an accessory use of the parcel except for a Solar Farm.
5. Photovoltaic (PV) Systems: A solar energy system that produces electricity by the use of semiconductor devices, called photovoltaic cells, which generate electricity whenever sunlight strikes them.
6. Rooftop Solar System: A solar energy system in which solar panels are mounted on top of a roof either as a flush-mounted system or as modules fixed to frames which can be tilted.
7. Solar access: The right of a property owner to have sunlight shine onto the property owner's land.
8. 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.
9. Solar Energy 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. This definition does not include small devices or equipment such as solar powered lawn or building lights which house both the solar energy generation system and the system which uses that energy to operate.
10. Solar Farm: A solar energy system located on a parcel of 20 acres or more which is designed and constructed primarily to produce electrical energy for sale back into an electrical energy grid system.
11. Solar Panel: A device for the direct conversion of solar energy into electricity.
12. Solar-Thermal Systems: A system, which through the use of sunlight, heats water or other liquids for such purposes as space heating and cooling, domestic hot water, and heating pool water.
13. Wall-mounted Solar Energy System: A solar energy system that is installed flush to the surface of the wall of a permanent building.

C. General Requirements for Solar Energy Systems

1. This section applies to solar energy systems to be installed and constructed after the effective date of this Section 2.20.
2. Solar energy systems constructed prior to the effective date of this section shall not be required to meet the requirements of this section; provided that any structural change, upgrade or modification to an existing solar energy system that materially alters the size or placement of such system shall comply with the provisions of this section.
3. The granting of any permit for a solar energy system does not constitute solar access rights.
4. A solar energy system shall be constructed and placed so it does not create a glare for persons off site.
5. A solar energy system shall be properly maintained at all times in accordance with the requirements of this Section 2.20.

Such maintenance shall include measures to maintain the original appearance of structure, ensuring that the solar panels do not leak and that the ground cover beneath the panels does not become a visual nuisance.

6. Solar energy systems shall be installed, maintained, and used only in accordance with the manufacturer's directions. A copy of such directions shall be submitted to the Township prior to installation.

7. Solar energy systems, and the installation and use thereof, shall comply with the Township building code and obtain applicable County, State of Michigan and federal permits.

8. Any SES that is not operated for a continuous period of six months as determined by the Township shall be considered abandoned or non-functional and subject for removal. Upon a determination by the Township that a SES should be decommissioned and within 90 days of receipt of written notification from the Township, the owner/operator shall begin to remove the SES from the site in accordance with the approved decommissioning plan.

D. Requirements for Rooftop and Wall Mounted SES

1. Roof and wall mounted SES are a permitted use in all zoning districts subject to review and approval by the Building Official. Applicants shall submit an accurate sketch plan to the Building Official providing the location of the building, location of the SES, the height of the SES including a data sheet and installation instructions from the equipment manufacturer and other information as requested by the Building Official. The applicant shall provide information on the type of solar panel to be used and any hazardous chemicals contained in the solar panels and measures to prevent leakage

2. Roof mounted SES shall not project more than five feet above the highest point of the roof, and in any case, shall not exceed the maximum building height limitation for the zoning district in which it is located, and shall not project beyond the eaves of the roof.

3. Roof and wall mounted SES shall be securely and safely attached to a building or structure. Proof of the safety and reliability of the means of such attachment shall be submitted to the Building Official prior to installation. Such proof shall be subject to the Township Building Official's approval.

4. Wall-mounted SES shall not exceed the height of the building wall to which they are attached.

5. Wall-mounted SES may be mounted on a building wall that faces upon a public or private street. 6. Wall and roof mounted SES shall be properly maintained in good repair and condition at all times so they maintain their original appearance and do not pose a potential safety hazard.

E. Level 1 Ground Mounted SES

1. A Level 1 Onsite Ground Mounted Solar Energy System (Level 1 SES) generally provides energy for onsite uses. This type of system is allowed in all zoning districts except the Lake Residential Zone as a permitted accessory use and structure subject to review and approval by the Building Official according to the following requirements.

2. The parcel proposed for the Level 1 SES shall contain an existing principal building or farm building.
3. The area occupied by a Level 1 SES shall not exceed 10,000 sq. ft. The measurement shall be taken around and at the outer edge of the perimeter of the solar panels.
4. Application. Applicants shall submit an accurate sketch plan to the Building Official illustrating property lines of the parcel, buildings on the parcel, wetlands or bodies of water on the site and within 100 feet of the site, the proposed setbacks and height of the SES including a data sheet from the equipment manufacturer and other information as requested by the Building Official.
5. Location and Setbacks. A Level 1 SES may be located in the front, rear and side yards subject to the following minimum setbacks. The measurement shall be taken from the lot line to the edge of the solar panel.
 - a. Front: A minimum of 100 feet from each front lot line.
 - b. Side and rear: A minimum of ten feet from the side and rear lot lines.
6. Height. A Level 1 SES shall not exceed a height of 14 feet when oriented at maximum tilt.

F. Level 2 Ground Mounted SES Allowed by Special Use Permit

1. A Level 2 Onsite Ground Mounted Solar Energy System (Level 2 SES) shall only occupy an area greater than 10,000 sq. ft. but less than 20 acres and is allowed in all zoning districts except the Lake Residential Zone as a permitted accessory use subject to review and approval of a Special Use Permit by the Planning Commission in accordance with the requirements and procedures of Chapter 12 herein and the following requirements. The measurement shall be taken around and at the outer edge of the perimeter of the solar panels.
2. The parcel proposed for the Level 2 SES shall contain an existing principal building or farm building.
3. Location and Setbacks. A Level 2 SES may be located in the front, rear and side yards subject to the following minimum setbacks. The measurement shall be taken from the lot line to the edge of the solar panel.
 - a. Front setback: A minimum of 100 feet from each front lot line.
 - b. Side and rear setback: A minimum of ten feet from the side and rear lot lines.
4. Height. A Level 2 SES shall not exceed a height of 14 feet when oriented at maximum tilt.
5. The portion of the premises on which the array of collector panel structures is located shall not be paved with asphalt or any other surface material that is impervious to rainwater.
6. The applicant shall provide information on the type of solar panel to be used and any hazardous chemicals contained in the solar panels and measures to prevent leakage.

7. Electrical Interconnections. All electrical interconnection or distribution lines shall comply with all applicable codes. The applicant shall provide evidence to the Township of approval from the applicable utility company.

8. Use of above ground transmission lines shall be prohibited within the site unless required by the offsite utility company which is receiving the energy produced by the Level 2 SES. 9. A decommissioning plan shall be provided as required by Section 2.20.G.5 herein.

G. Solar Farms

1. A Solar Farm provides energy exclusively for offsite uses and is only permitted in the Agriculture/Rural Estate Zoning District subject to review and approval of a Special Use Permit by the Planning Commission in accordance with the requirements and procedures of Chapter 12 herein and the following requirements.

2. A Solar Farm shall only be permitted on parcels which are 20 acres or larger.

3. Application Requirements. In addition to the site plan required by Chapter 13 of this Ordinance, the applicant shall provide the following information:

- a) Proof of lease or purchase agreement for the parcel containing the proposed Solar Farm;
- b) Type of solar panel to be used and any hazardous chemicals contained in the solar panels and measures to prevent leakage.
- c) Identify the type, size, rated power output, performance, safety and noise characteristics of the system;
- d) Name and address of the manufacturer, and model of the SES;
- e) A list of all permits such as a soil erosion, building, electrical and other permits required by County, State and federal agencies to install the Solar Farm;
- f) Identify installation time frame, project life, development phases, likely markets for the generated energy, and possible future expansions;
- g) Elevation drawings, detailed computer and/or photographic simulations and other models and visual aids showing the solar energy system with all related facilities as they will appear on the proposed site;

h) A written description of the maintenance program to be used to maintain the SES, type of ground cover and necessary maintenance, and the anticipated construction schedule;

i) Digital versions of all planning and construction documents required pursuant to Chapter 13, Site Plan Review. Digital submittals are in addition to paper plans and do not replace any current submission requirements. Digital versions shall be submitted in PDF (Adobe Acrobat/Portable Document File) format;

j) Evidence that the Solar Farm will not create a glare for persons off site or airplane operators;

k) Distance from the proposed Solar Farm solar panels to the nearest habitable dwelling unit on a parcel which does not contain the Solar Farm;

l) A security plan detailing on-site security provisions which may include fencing, full-time security guards, video surveillance, and similar methods;

m) A construction waste management plan detailing the methods of waste disposal of the cardboard, wood, scrap metal, and scrap wire resulting from construction of the Solar Farm;

n) A landscaping plan illustrating the number, size, type and spacing of trees proposed to screen the Solar Farm from nearby roadways;

o) Additional information as required by Chapter 13 of this Ordinance, or as may be required by the Planning Commission;

p) The Planning Commission may waive or modify the above requirements at the request of the applicant if the Commission determines that those items would not be needed to properly review the project.

4. Requirements for Solar Farms

a) The minimum parcel size for a Solar Farm shall be 20 acres. A parcel containing a Solar Farm shall not require frontage on a public street.

b) Setbacks. The solar panels in a Solar Farm shall comply with the following minimum setbacks. The measurement shall be taken from the lot line to the edge of the solar panel.

a. Front setback: A minimum of 100 feet from each front lot line. b. Side and rear setback: A minimum of ten feet from the side and rear lot lines.

The Planning Commission may require a greater setback to ensure compatibility with adjacent land uses.

c) Height. A ground mounted SES shall not exceed a height of 14 feet when oriented at maximum tilt.

d) Use of above ground transmission lines shall be prohibited within the site unless required by the offsite utility company which is receiving the energy produced by the Solar Farm.

e) Safety/Access: A security fence shall be placed around the perimeter of the Solar Farm with a locked gate. Knox boxes and keys shall be provided at locked entrances for emergency personnel access subject to approval of the Township Fire Chief. The height and material of the fence shall be as approved by the Planning Commission depending upon the location of the facility.

f) The facility shall be designed for interconnection to a public utility electrical power grid, and shall be operated with such interconnection. All electrical interconnection or distribution lines shall comply with all applicable codes. The applicant shall provide evidence to the Township of approval from the applicable utility company.

g) The portion of the premises on which the array of collector panel structures is located shall not be paved with asphalt or any other surface material that is impervious to rainwater.

h) Plantings shall be installed around the perimeter of the parcel or parcels containing the Solar Farm. One deciduous or conifer tree for every 25 feet of property line length is required. The Planning Commission may modify the landscaping requirement depending upon the location of existing plant material on the site or if additional plantings are needed to buffer existing land uses. Trees shall be a minimum of four feet tall when planted and remain in good condition for the life of the project.

5. Decommissioning Plan:

The applicant shall submit a decommissioning plan which shall address the following:

- a) Defined conditions upon which decommissioning will be initiated (i.e., end of land lease, no power production for six months, obsolete equipment and similar circumstances.)
- b) A description as to how the useful life of the system will be determined and who will make this determination.

- c) Removal of all non-utility owned equipment, conduit, structures, fencing, roads, and building foundations to a depth of three feet below grade.
- d) Restoration of property to the condition prior to development of the Solar Farm including measures to ensure that soils are not contaminated during decommissioning.
- e) The timeframe for completion of decommissioning activities.
- f) An engineer's cost estimate for all aspects of the decommissioning plan.
- g) Description of any agreement with the landowner regarding decommissioning.
- h) Provisions for updating the decommissioning plan.
- i) A statement signed by the owner or operator that they take full responsibility for reclaiming the site in accordance with the decommissioning plan and the Special Land Use Permit upon cessation of use.

The Planning Commission shall require that the owner or operator provide a financial guarantee to cover the costs of decommissioning the site in accordance with Section 2.20.
G.9

6. Insurance: The applicant/owner/operator/landowners shall indemnify, defend and hold harmless the applicant/owner/operator/landowners itself and Douglass Township, all as additional named insureds, against any and all claims arising out of the existence, operation or failure of the solar energy system.

The applicant/owner/operator/ shall procure comprehensive general liability, casualty, wrongful acts insurance policies, and any other policies customary to the solar energy system industry. This insurance shall be in the amount of \$5 million per solar energy system but not to exceed \$100 million in the aggregate if the applicant/owner/operator/ own(s) more than one solar energy system in Douglass Township. The Planning Commission may adjust these amounts periodically to reflect inflation.

The applicant/owner/operator/ shall maintain these insurances for the duration of the construction, operation, decommissioning, removal and site restoration of the solar energy system. The insurance carrier shall be instructed to provide Douglass Township with certificates of the existence of such insurances, and shall be instructed to notify the Township if such insurances expire for any reason. Failure of the applicant/owner/operator to maintain these insurances at all times may result in termination of the permit.

7. Certification of Compliance: The applicant shall provide certification to the Township that the applicant has complied or will comply with all applicable county, state and federal laws and regulations before a building permit is issued by the Township.

8. Administration Costs Initial Application and Ongoing:

- a) For each solar energy system application, the applicant/owner/operator shall deposit into an escrow account the amount of \$5,000. The purpose of this joint escrow account is:
 - i. To reimburse Douglass Township for its costs incurred to hire consultants and experts as the Township, at its sole discretion, deems desirable to examine, evaluate and verify the data and statements presented by the applicant/owner/operator;
 - ii. For the life of each solar energy system, to cover the administrative and legal costs incurred by Douglass Township in monitoring and enforcing the owner/operator's ongoing compliance with the Ordinance.
- b) The account shall be managed as follows:
 - i. Funds can be withdrawn from this account only by the signature of a Township designee.
 - ii. If at any time the balance of this account shall fall below \$1,000, the applicant/owner/operator shall deposit additional funds to restore the account to a \$5,000 balance.
 - iii. If at any time the balance of this fund shall fall below \$1,000 for a continuous period of thirty days, the application shall be considered to have been withdrawn, or the Permit for the solar energy system may be terminated.
 - iv. The Township Clerk or Township designee shall be charged with monitoring the escrow account and giving quarterly reports to the Planning Commission. After the solar energy system has been removed and site restoration has been completed, as defined in this Ordinance, any balance remaining in this account shall be returned to the applicant.

9. Removal Cost Guarantee: The cost of removal and site restoration is the full responsibility of the applicant and/or owner/operator. In order to provide the greatest possible financial assurance that there will be sufficient funds to remove the solar energy system and to restore the site, the following steps shall be followed:

- a) For each solar energy system, the applicant/owner/operator shall determine an amount of money equal to the estimated removal and restoration cost. The Planning Commission shall require independent verification of the adequacy of this amount.
- b) This money shall be deposited in an escrow account specified by Douglass Township, which may be an interest-bearing account. A surety bond, letter of credit, or other financial promise shall not be accepted.

c) Withdrawals will be made from this account, solely by Douglass Township or its designee, only to pay for removal and site restoration of the solar energy system as provided for in this Ordinance.

d) Any funds left in the account for each solar energy system after removal and site restoration shall be returned by Douglass Township to the owner/operator.

SECTION 2 Severability: Should a court of competent jurisdiction ever declare that this Ordinance/ordinance amendment (or any portion hereof) is unconstitutional or invalid, that shall not affect the balance of this Ordinance/ordinance amendment, which shall remain in full force and effect.
SECTION 3 This Ordinance shall become effective seven days after its publication or seven days after the publication of a summary of its provisions in a local newspaper of general circulation.

AYES: _____

NAYS: _____

ORDINANCE DECLARED ADOPTED

_____ Ronda Snyder, Township Clerk

STATE OF MICHIGAN COUNTY OF MONTCALM

I hereby certify that the foregoing is a true and complete copy of an ordinance adopted by the Township Board of Douglass Township at a regular meeting held on the date first stated above, and I further certify that public notice of such meeting was given as provided by law.

_____ Ronda Snyder, Township Clerk