

## MASON COUNTY, MICHIGAN

### ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE TO AMEND THE MASON COUNTY ZONING ORDINANCE; TO AMEND SECTION 2.02, DEFINITIONS TO ADD A NEW DEFINITION FOR ‘MAXIMUM SOUND LEVEL (LMAX)’ AND ‘SOLAR ENERGY COLLECTOR’; TO AMEND ARTICLE III TO INCLUDE A NEW SECTION 3.42 PERTAINING TO SMALL-SCALE SOLAR ENERGY SYSTEMS; TO AMEND 6.03, SPECIAL LAND USES, TO INCLUDE A NEW SPECIAL LAND USE CALLED ‘UTILITY GRID SOLAR ENERGY SYSTEM’; TO AMEND SECTION 11.03, SPECIAL LAND USES, TO INCLUDE A NEW SPECIAL LAND USE CALLED ‘UTILITY GRID SOLAR ENERGY SYSTEM’; AND TO AMEND ARTICLE XVII TO INCLUDE A NEW SECTION 17.72 PERTAINING TO UTILITY GRID SOLAR ENERGY SYSTEMS.

MASON COUNTY, MICHIGAN, ORDAINS:

**Section 1. Amendment of Section 2.02.** Section 2.02 of the Mason County Zoning Ordinance is amended such that the following definitions are added in alphabetical order:

**Maximum Sound Level (Lmax):** The maximum sound pressure level for a given period of time or noise event.

**Solar Energy Collector:** A system (including solar collector surfaces and ancillary solar equipment) either affixed to a permanent principal or accessory building or functioning as a freestanding structure, that collects, stores, and distributes solar energy for heating or cooling, generating electricity, or heating water. Solar Energy Systems include, but are not limited to, photovoltaic (PV) power systems and solar thermal systems.

- 1. Ancillary Solar Equipment:** Any accessory part or device of a solar energy system that does not require direct access to sunlight, such as batteries, electric meters, converters, or water heater tanks.
- 2. Building-Mounted Solar Energy Collector:** A solar energy collector attached to the roof or wall of a building, or which serves as the roof, wall or window or other element, in whole or in part, of a building.
- 3. Community Solar Energy System:** A solar energy system that is primarily used for generating electricity for use by a collective of property owners, lessees, tenants, residents, or other occupants of a collective of lots or units. Community solar energy systems shall be considered a small-scale solar energy system until the total surface area of all solar collector surfaces exceeds ten-thousand (10,000) square feet, at which point it shall be considered a utility grid solar energy system.

4. **Ground-Mounted Solar Energy Collector:** A solar energy collector that is not attached to and is separate from any building on the parcel of land on which the solar energy collector is located.
5. **Property Owner Or Lessor:** Any person, agent, firm, corporation, or partnership that alone, jointly, or severally with others: (1) has legal or equitable title to any premises, dwelling, or dwelling unit, with or without accompanying actual possession thereof; or (2) has charge, care, or control of any premises, dwelling or dwelling unit, as agent of the owner or as executor, administrator, trustee, or guardian of the estate of the beneficial owner. The person shown on the records of the County Register of Deeds to be the owner of a particular property shall be presumed to be the person in control of that property.
6. **Small-Scale Solar Energy Collector:** A solar energy collector primarily intended to provide energy for on-site uses and to provide power for use by owners, lessees, tenants, residents, or other occupants of the lot on which it is erected. It may be comprised of the following: building-integrated photovoltaic (BIPV) systems, flush-mounted solar panels, ground-mounted solar energy collectors, or building-mounted solar energy collectors.
7. **Solar Collector Surface:** Any part of a solar energy system that absorbs solar energy for use in the system's transformation process. The collector surface does not include frames, supports, and mounting hardware.
8. **Solar Energy:** Radiant energy received from the sun that can be collected in the form of heat or light by a solar energy system.
9. **Utility Grid Solar Energy System:** A solar energy system that meets one or more of the following:
  - a. It is primarily used for generating electricity for sale and distribution to an authorized public utility for use in the electrical grid;
  - b. The total surface area of all solar collector surfaces exceeds ten-thousand 10,000 square feet; and/or
  - c. It is a principal use or principal structure on a parcel.

**Section 2. Amendment of Article III.** Article III of the Mason County Zoning Ordinance is amended to add a new Section 3.42, which reads as follows:

### **Section 3.42 Small-Scale Solar Energy Systems**

**Applicability.** This section applies to any system of small-scale solar energy collector systems. This section does not apply to solar energy collectors mounted on fences, poles, or on the ground

with collector surface areas less than five (5) square feet and less than five (5) feet above the ground, nor does this section apply to utility-grid solar energy collector systems, which are regulated in Section 17.72. Nothing in this section shall be construed to prohibit collective solar installations or the sale of excess power through a net billing or net-metering arrangement.

A. General requirements.

1. **Permit Required.** No small-scale solar energy collector system shall be installed or operated except in compliance with this section. A zoning compliance permit shall be obtained from the Zoning Administrator prior to the installation of a small-scale solar energy system. All small-scale solar energy systems shall be constructed, installed, operated, and maintained in strict accordance with the Michigan Building Code, the Electrical Code, and the manufacturer's specifications.
2. **Applications.** In addition to all other required application contents as listed in Section 25.02, equipment and unit renderings, elevation drawings, and site plans depicting the location and distances from lot lines and adjacent structures shall be submitted for review by the Zoning Administrator.
3. **Glare and Reflection.** The exterior surfaces of solar energy collectors shall be generally neutral in color and substantially non-reflective of light. With the exception of the energy collecting surface, the color of framing and structural equipment shall be muted soft white, gray, galvanized, or other similar neutral color that blends into the environment or structure on which it is located. The Planning Commission may request that a paint sample be provided to demonstrate consistent appearance in paint finish and color. A unit may not be installed or located so that sunlight or glare is reflected into neighboring structures or onto adjacent roads or private roads.
4. **Installation.**
  - a. A solar energy collector shall be permanently and safely attached to the ground or structure. Solar energy collectors, and their installation and use, shall comply with building codes and other applicable County and State requirements.
  - b. Solar energy collectors shall be installed, maintained, and used only in accordance with the manufacturer's directions. Upon request, a copy shall be submitted to the County prior to installation.
5. **Power Lines.** On-site power lines between solar panels and inverters shall be placed underground.
6. **Abandonment and Removal.** A solar energy collector system that ceases to produce energy on a continuous basis for twelve (12) months will be considered abandoned.

Following the abandonment of a solar energy collector system, the following standards are applicable:

- a. The responsible party may reinstate the system up to six (6) months after the system is declared abandoned if the County is given substantial evidence of the responsible party's intent to maintain and reinstate the operation of that system.
- b. The responsible party shall remove all equipment and facilities and restore the lot to its condition prior to the development of the system within one (1) year of abandonment.

**B. Building-Mounted Solar Energy Collectors.** These systems may be established as accessory uses in all zoning districts subject to the following conditions.

1. **Maximum Height.** Building-mounted solar energy collectors shall be attached directly to the building and shall not be taller than the peak of the building to which they are attached.
2. **Obstruction.** Building-mounted solar energy collectors shall not obstruct solar access to adjacent properties.

**C. Ground-Mounted Solar Energy Collectors.** These systems are permitted in all zoning districts as accessory uses subject to the following conditions.

1. **Rear and Side Yards.** The unit may be located in the rear yard or the side yard but shall be subject to the setbacks for accessory buildings.
2. **Front Yard.** The unit may be located in the front yard only if located not less than two hundred (200) feet from the front lot line.
3. **Obstruction.** Ground-mounted solar energy collectors shall not obstruct solar access to adjacent properties.
4. **Maximum Size.**
  - a. **Residential uses.** There shall be no more than one percent (1%) of the lot area, up to two thousand (2,000) square feet, of collector panels on a ground-mounted solar energy collector system. For determining lot area coverage, the solar collector surface area shall be used.
  - b. **Agricultural, Commercial, and Industrial uses or Community Solar Energy Systems.** There shall be no more than ten thousand (10,000) square feet of solar collector surface on a ground-mounted solar energy collector system unless a Utility Grid Solar Energy Systems is approved pursuant to Section 17.72.

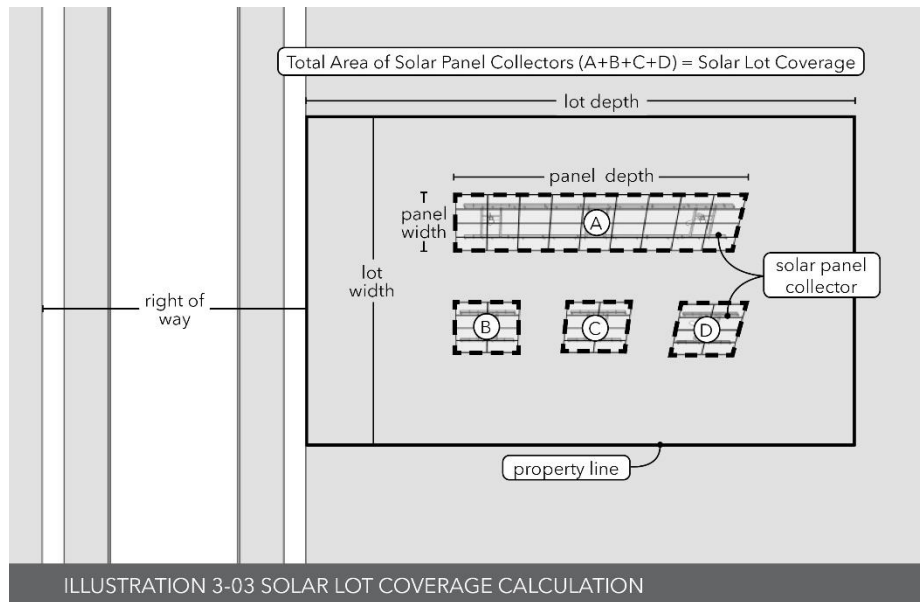


ILLUSTRATION 3-03 SOLAR LOT COVERAGE CALCULATION

## 5. Maximum Height.

- a. **Residential uses.** The maximum height shall be twelve (12) feet, measured from the natural grade below the unit to the highest point at full tilt.
- b. **Agricultural, Commercial, and Industrial uses or Community Solar Energy Systems.** The maximum height shall be sixteen (16) feet, measured from the natural grade below the unit to the highest point at full tilt.

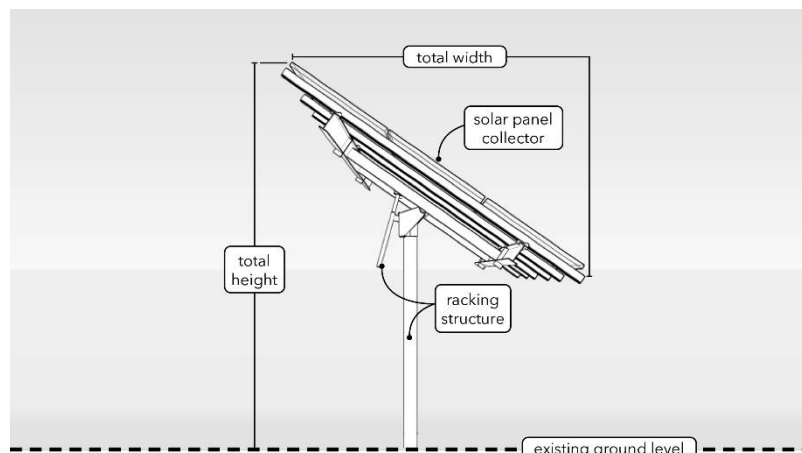


ILLUSTRATION 3-04 SOLAR PANEL HEIGHT, WIDTH, AND COMPONENTS

6. **Minimum Lot Area.** Two (2) acres shall be the minimum lot area to establish a ground-mounted solar energy collector system.
7. **Screening.** Screening shall be required in cases where a ground-mounted solar energy collector impacts views from adjacent residential properties. Screening methods may include the use of material, colors, textures, screening walls, and landscaping that will blend the unit into the natural setting and existing environment.

**Section 3. Amendment of Section 6.03.** Section 6.03 of the Mason County Zoning Ordinance is amended such that the use “Utility Grid Solar Energy Systems” is added as a Special Land Use within the RE, Rural Estates District.

**Section 4. Amendment of Section 11.03.** Section 11.03 of the Mason County Zoning Ordinance is amended such that the use “Utility Grid Solar Energy Systems” is added as a Special Land Use within the I, Industrial District.

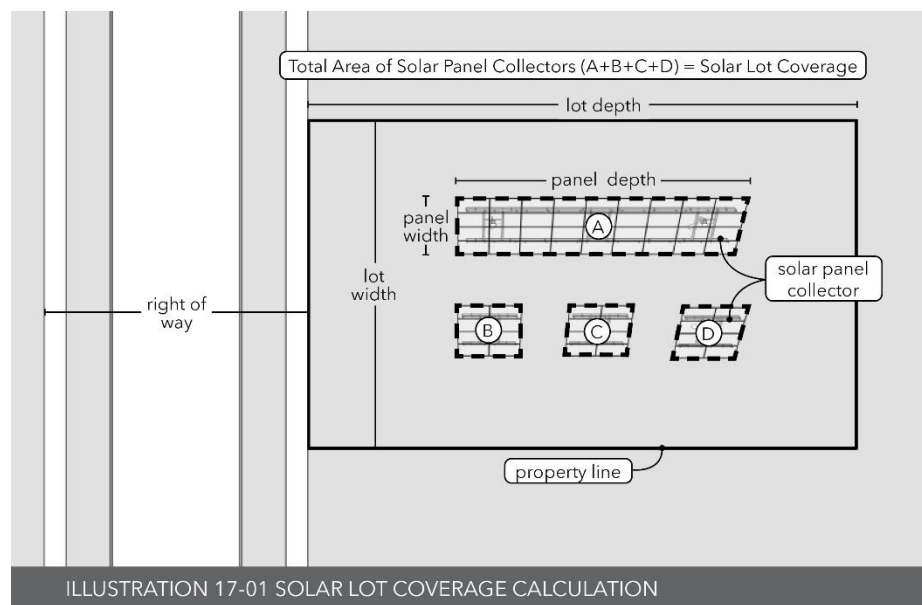
**Section 5. Amendment of Article XVII.** Article XVII of the Mason County Zoning Ordinance is amended to include a new section 17.72, which reads as follows:

#### **Section 17.72 Utility Grid Solar Energy Systems**

1. **Site Plan Required.** An application for special land use approval for a utility grid solar energy system shall include a site plan in accordance with Article XVIII. In addition to the information required for site plan approval in Section 18.03, all applications must also include the following:
  - a. Equipment and unit renderings
  - b. Elevation drawings
  - c. Setbacks from property lines and adjacent structures, and height of proposed structures
  - d. Written permission from the property owner authorizing the utility grid solar energy System
  - e. All additional plans and requirements set forth in this Section.
2. **Permits.** No utility-grid solar energy system shall be constructed, installed, operated, maintained, or modified as provided in this section without first obtaining a zoning compliance permit, building permit, and all other applicable permits. The construction, installation, operation, maintenance, or modification of all utility-grid solar systems shall be consistent with all applicable local, state, and federal requirements, and all buildings

and structures that comprise a utility grid solar energy system shall be constructed, installed, operated, and maintained in strict accordance with the Michigan Building Code, the Electrical Code, and the manufacturer's specifications. Installation of the utility grid solar energy system shall not commence until all necessary permits have been issued.

3. **Lot Area and Lot Coverage.** Utility grid solar energy systems shall be located on a lot of at least twenty (20) acres. Utility grid solar energy systems shall not exceed the maximum lot coverage of the zoning district in which it is located or thirty-five (35) percent, whichever is less. For determining lot area coverage, the solar collector surface area shall be used.



4. **Drainage and Ground Cover.** Proposed drainage and stormwater management shall be reviewed by the County Drain Commissioner and all utility grid solar energy systems shall not be located within seventy-five (75) feet of a drainage easement. Ground cover beneath the solar energy collectors is required to be planted with native plantings which benefit pollinators, decrease erosion, and/or improve wildlife habitat, unless specifically modified by the Planning Commission. Supports shall be constructed to preserve any drainage field tile and/or drainage system. Any and all broken/missing field tiles shall be repaired and made in operable condition as soon as possible but no more than three (3) months after damage and/or failure.
5. **Setbacks.** Solar energy collectors and ancillary solar equipment affiliated with a utility grid solar energy system shall be located at least three-hundred (300) feet from the lot line(s) of properties not leased or used for utility grid solar energy systems and seventy-five (75) feet from all easements and/or rights-of-way. In addition, solar energy collectors and ancillary solar equipment affiliated with a utility grid solar energy systems shall be located at least three-hundred (300) feet from all existing residential dwellings, as

measured from the foundation of the dwelling to the nearest part of any collector or equipment. Screening methods may be permitted within the setbacks.

6. **Height.** Utility grid solar energy systems shall not exceed sixteen (16) feet in height, measured from the natural grade below the unit to the highest point at full tilt.

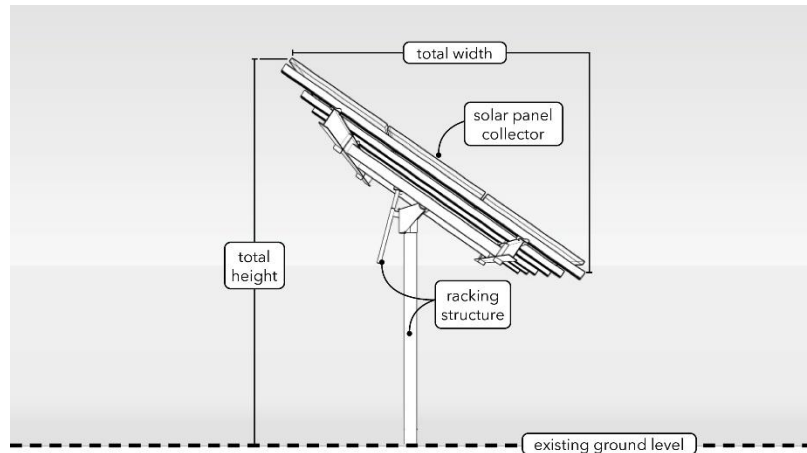


ILLUSTRATION 17-02 SOLAR PANEL HEIGHT, WIDTH, AND COMPONENTS

7. **Noise.** Noise emanating from the utility grid solar energy collector system, including inverter noise, shall not exceed forty (40) decibels (dBA) Lmax as measured from any property line. The Planning Commission may reduce this maximum noise level in order to protect adjacent residents and property owners.
8. **Exterior Lighting.** Exterior lighting of the utility grid solar energy system shall be limited to the minimum necessary, supplied with downward facing lighting that is one hundred percent (100%) cut off above the horizontal plane. The light from any illuminated source shall be designed so that the light intensity or brightness at a distance of twenty (20) feet from the perimeter of the utility grid solar energy system shall not exceed one (1) foot candle. The County may require the submittal of a photometric plan for review to make this determination.
9. **Screening.** The Planning Commission may require that a utility grid solar energy system be screened from residential properties or public rights-of-way. Landscaping and screening requirements shall comply with Section 3.13 as contained herein and may be waived or modified as allowed in that Section.
10. **Glare and Reflection.** The exterior surfaces and structural components of utility grid solar energy collectors shall be generally neutral in color and substantially non-reflective of light. With the exception of the energy collecting surface, the color of framing and structural equipment shall be muted soft white, gray, galvanized, or other similar neutral color that blends into the environment or structure on which it is located. The Planning Commission may request that a paint sample be provided to demonstrate consistent appearance in paint finish and color. A solar collector surface shall not be installed or



located so that sunlight or glare is reflected into neighboring structures or onto adjacent streets.

11. **Location and Siting.** Utility grid solar energy systems shall be located in the area least visibly obtrusive to adjacent residential properties while remaining functional and shall be located within three (3) miles of an electrical substation in existence at the time of application.
  - a. Property enrolled in PA 116 Farmland and Open Space Preservation Program shall not be eligible for use as part of a utility grid solar energy system.
  - b. The applicant shall provide evidence of compliance with applicable State of Michigan statutes including, but not limited to: Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.); Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding Mason County ordinances; Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.); Part 303, Wetlands (MCL 324.30301 et. seq.); Part 365, Endangered Species Protection (MCL 324.36501 et. seq.); and such other applicable laws and rules in force at the time the application is considered.
12. **Obstruction.** Utility grid solar energy systems shall not obstruct solar access to adjacent and neighboring properties.
13. **Power lines.** On site power lines between all structures and ancillary equipment and inverters shall be placed underground.
14. **Fencing.** For the purpose of restricting unauthorized access to the site, the Planning Commission may require that the perimeter of a utility grid solar energy system be fenced in with at least a six (6) foot high fence.
15. **Operation and Maintenance Plan.** The applicant shall submit a plan for the operation and maintenance of the utility grid solar energy system, which shall include measures for maintaining safe access to the installation, storm water controls, as well as general procedures of operational maintenance of the installation, as applicable.
16. **Emergency Services.** Upon request by Mason County, the owner/operator of the utility grid solar energy system shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the solar energy system shall be clearly marked. The owner/operator shall identify a responsible person for public inquiries throughout the life of the installation. An information sign shall be posted and maintained at the entrance(s) which lists the name and phone number of the operator.

17. **Maintenance.** The utility grid solar energy system owner/operator shall maintain the facility in good condition at all times. Maintenance shall include, but not be limited to, structural repairs, safety-related upgrades, and integrity of security measures. Site access roads or drives shall be maintained to a level acceptable to local emergency services personnel. The owner/operator shall be responsible for the cost of maintaining the solar photovoltaic installation and any access road(s).
18. **Performance Review.** The Planning Commission shall require a performance review of the special land use on a three-year basis or as otherwise required by the Planning Commission. The three-year time period commences upon the utility grid solar energy system becoming operational. The Planning Commission shall provide the performance review and the County shall perform, where reasonably practicable, investigation regarding a complaint or other matter requiring a performance review. In its sole discretion, the County may require the assistance of an independent third party due to the specialized nature of the complaint, conflicting evidence, or other condition. The reasonable cost of an independent third-party consultant shall be at the expense of the utility grid solar energy system owner or operator. The purpose of the performance review is to evaluate the status of:
- a. Compliance with Special Land Use. Compliance with the conditions set forth by the special land use, such as specific mitigation measures or operation procedures.
  - b. Ownership Change. Changes in ownership or operation of the utility grid solar energy system.
  - c. Other. Other matters as determined by the Planning Commission.
  - d. Unresolved and/or repeated complaints. A complaint taking longer than thirty (30) days to resolve may require a performance review unless otherwise specified in the ordinance. If after the performance review and further investigation, the Planning Commission verifies that alleged ordinance violations are the result of the operation or condition of the utility grid solar energy system, the owner/operator shall eliminate the non-compliance by mitigation or other measures which may include temporary operational changes. The Planning Commission shall establish the effective date of the mitigation measure based on the nature of the mitigation.
  - e. As a condition of the Planning Commission conducting a performance review, the complainant shall be required to allow County staff, the utility grid solar energy system owner, operator, or designated staff, or other authorized personnel such as an engineer, on the property of the complainant for further investigation and testing.
19. Failure to maintain compliance with Section 17.72 of this ordinance shall result in enforcement action which may include the termination, suspension, or revocation of the special land use, or portions of the special land use. Actions taken by the Planning

Commission to terminate or modify the Special Land Use, portions of the Special Land Use, or the conditions of the Special Land Use shall require a public hearing and notification to the utility grid solar energy system owner or operator pursuant to the conditions of the original permit and in accordance with Section 25.05 of this ordinance.

**20. Complaint Resolution.** The purpose of this section is to provide the public with a mechanism to file a complaint with the utility grid solar energy system owner or operator and the Zoning Administrator and receive a timely response from the utility grid solar energy system owner/operator regarding alleged violations. The applicant shall submit procedures which it intends to implement for receiving, acting upon, and resolving complaints or allegations that the utility grid solar energy system is not operated or maintained in compliance with this ordinance.

- a. Complaint resolution procedures must be presented at the time of application and must meet the approval of the Planning Commission prior to approval of a special land use. Those procedures, at a minimum, shall:
  1. Require the system owner or operator to accept complaints regarding non-compliance with the ordinance from all property owners within one mile radius of a utility grid solar energy system.
  2. Provide a telephone number and mailing address at which the owner or operator can be contacted for purposes of submitting complaints or allegations of non-compliance.
  3. Require that all such complaints or allegations be submitted in writing.
  4. As a condition of the system owner or operator acting on the complaint, require that a complainant allow the utility grid solar energy system owner or operator or designated staff, or other authorized personnel such as an engineer, on the property of the complainant for further investigation and testing.
  5. Set forth information that must be included in the complaint or allegation.
  6. Require that a complaint is acknowledged in writing by the utility grid solar energy system owner or operator to both the complainant and the Zoning Administrator within five (5) business days of receipt of said complaint.
  7. Set forth the number of days, not to exceed thirty (30), in which the operator shall investigate and resolve any and all complaints or allegations, either by way of correction or formal denial of non-compliance.

8. Require the operator to advise the Zoning Administrator in writing of the resolution of any complaint or allegation of non-compliance within thirty (30) days of its receipt of the same.
  - b. Any complaint not resolved within thirty (30) days shall result in a performance review by the Planning Commission as described in Section 17.72 (18). Resolution or mitigation of a complaint that involves construction, landscaping, testing or other significant alteration/operational condition that is dependent on seasonal or other conditions may exceed thirty (30) days if approved by the Planning Commission
  - c. It shall be a violation of this ordinance to modify the approved complaint resolution procedures without the prior approval of the Planning Commission.
  - d. The utility grid solar energy system owner or operator shall be provided a reasonable opportunity to cure any violations identified by the County.
21. **Costs.** In the event the utility grid solar energy system owner or operator is determined at fault for a violation following the complaint resolution process described above, the owner or operator shall be responsible for all costs incurred by the County in coming to a resolution, in addition to any other penalties for violations of the Mason County Zoning Ordinance. This section is not a waiver of the County's authority to seek any relief at law or equity to abate such violations. The Mason County Planning Commission shall be kept apprised of all complaints and shall receive a report outlining the issues, the progress, and the resolution of each such complaint. The Mason County Planning Commission shall be authorized to enforce any resolution of such complaint.

**22. Decommissioning.**

- a. The applicant for a utility grid solar energy system shall describe the decommissioning and final land reclamation plan to be followed after the anticipated life, abandonment, or termination of the utility grid solar energy system, including evidence of proposed commitments with property owners to ensure proper final reclamation of the property.
- b. Any utility-grid solar energy system which has reached the end of its useful life or has not operated continuously for one year or more shall be removed and the owner/operator shall be required to restore the site. The owner/operator shall physically remove the installation no more than one hundred and fifty (150) days after the date of discontinued operations and/or notice of abandonment by the County.
- c. The owner/operator shall notify the County personally or by certified mail of the proposed date of discontinued operations and plans for removal.

- d. If the owner/operator fails to remove the installation in accordance with the requirements of this section within 150 days of abandonment, proposed date of decommissioning, or notice of abandonment by the County, the County may enter the property and physically remove the installation, and recover the cost thereof in accordance with subsection 23, below.
- e. Removal of the installation shall consist of the following:
  - 1) Physical removal of all aboveground or underground utility-grid solar energy systems, structures, equipment, security barriers, roads, and transmission lines from the site.
  - 2) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
  - 3) Stabilization and re-vegetation of the site with seasonal grasses as necessary to minimize erosion. If the property was used for agricultural purposes at the time of installation, the property shall be returned to an agricultural ready condition.

**23. Financial Guarantee.** The applicant for a utility grid solar energy system shall provide a form of surety, either through escrow account, letter of credit, bond, or other instrument acceptable to the County Attorney. The surety shall be maintained with a company licensed to do business in the State of Michigan or a Federal- or State-chartered lending institution acceptable to the County. Any bonding company or lending institution shall provide the County with 90 days' notice of the expiration of the security bond, escrow, or irrevocable letter of credit. In the event of sale or transfer of ownership and/or operation of the utility grid solar energy system, the security bond, escrow, or irrevocable letter of credit shall be maintained throughout the entirety of the process and the new owner or operator shall be required to provide a new security bond, escrow, or irrevocable letter of credit. If at any time during the operation of the utility grid solar energy system or prior to, during, or after the sale or transfer of ownership and/or operation of the utility grid solar energy system the security bond, escrow, or irrevocable letter of credit is not maintained, the County may take any action permitted by law, revoke the special land use, order a cessation of operations, and order removal of the system and reclamation of the site.

The purpose of the surety is to cover the cost of removal of the utility grid solar energy system in the event the County must remove the installation during or after construction. The amount of the financial surety shall not exceed more than 125 percent of all costs of removal and compliance with the additional requirements set forth herein. It shall be submitted by the applicant and be prepared by a qualified engineer. The applicant shall update the surety every three (3) years to ensure that the surety is sufficient compared to inflation. The surety shall be subject to review and approval by the Planning Commission and shall be a condition of special land use approval.

**Section 6. Severability and Captions.** This Ordinance and the various parts, sections, subsections, sentences, phrases and clauses thereof are hereby declared severable. If any part, section, subsection, sentence, phrase or clause is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this Ordinance shall not be affected thereby. The captions included at the beginning of each Section are for convenience only and shall not be considered a part of this Ordinance.

**Section 7. Repeal.** Any existing ordinance or resolution that is inconsistent or conflicts with this Ordinance is hereby repealed to the extent of any such conflict or inconsistency.

**Section 8. Effective Date.** This Ordinance is ordered to take effect seven (7) days following publication of adoption in *INSERT NEWSPAPER*, a newspaper having general circulation in the County, under the provisions of 2006 Public Act 110, except as may be extended under the provisions of such Act.

ROLL CALL VOTE:

YES:

NO:

Declared adopted on:

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Janet Andersen, Chair of the Board

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Cheryl Kelly, Mason County Clerk