

WALES TOWNSHIP

ORDINANCE NO. _____

AN ORDINANCE TO AMEND THE ZONING ORDINANCE
TO REGULATE SOLAR ENERGY SYSTEMS

The Township of Wales ordains:

Section 1. Adoption of _____, Solar Energy System Overlay District

_____, entitled "Solar Energy System Overlay District," is added to the Zoning Ordinance and reads as follows:

Section _____ Purpose and Findings

A. Purpose. The Solar Energy System Overlay District (the "District") is intended to provide suitable locations for utility-scale solar energy systems that are otherwise authorized under state law and the Township's Code of Ordinances and Zoning Ordinance to meet a reasonable demonstrated need for this land use in the Township. It is the intent of the Township to permit these systems to the extent a demonstrated need exists for the land use by regulating the siting, design, construction, operation, monitoring, modification, and removal 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. The Township seeks to preserve its rural character and agricultural heritage. To these ends, the lands included in this District are within reasonable proximity to existing electric power transmission infrastructure.

B. Findings. In establishing this overlay district, the Township of Wales finds as follows:

1. It is necessary and reasonable to permit utility-scale solar energy systems in the Township to the extent that there is a demonstrated need for that land use.
2. Land use for utility-scale solar energy systems beyond a reasonable and legitimate demonstrated need to provide for the Township's energy needs would have needless adverse effects on surrounding businesses and residences, and be detrimental to the health, safety, welfare, and prosperity of the Township and its residents.
3. The Township wishes to preserve its existing topography and rural character, maintain property values, and protect and preserve the quality and pace of rural life of its residents while preserving the environment and protecting wildlife.
4. Solar Energy Systems can adversely impact the health, safety, welfare, and prosperity of that community, including existing property values, especially when in proximity to farms, forests, and residential properties.
5. Solar Energy Systems shall be carefully managed to reduce the adverse long-term effects such land use can have on the productivity of farmland. *See University of Michigan Graham Sustainability Institute & Michigan State University Extension, "Planning & Zoning for Solar Energy Systems."*
6. Several Michigan communities have suffered, or are suffering, from fiscal uncertainty due to litigation and rule changes concerning taxation arising from rural renewable energy production.

7. Wales Township contributes significant storm water runoff into adjacent municipalities because of relative elevations, and therefore the Township values low-impact development to better manage its stormwater runoff.

8. Impervious surfaces such as solar panels channel stormwater runoff, and support posts and trenching are likely to damage drain tiles. Thus, Utility Scale Solar Energy Systems must be carefully sited, designed, and limited in scope.

9. The Township adopts these land use regulations to balance any demonstrated need for utility-scale solar energy systems in the Township with the public, health, and safety impacts identified above.

Section _____ Delineation of the Solar Energy System Overlay District

A. The Solar Energy System Overlay District overlays existing zoning districts delineated on the official Wales Township Zoning Map. The boundaries of the Solar Energy System Overlay District are depicted on Map A, incorporated herein by reference, and are generally described as follows:

Section _____ Permitted Uses.

There are no uses permitted by right in the Solar Energy System Overlay District, other than uses permitted by right in the underlying zoning districts.

Section _____ Special Land Uses.

The following uses are permitted following approval by the Planning Commission as a Special Land Use in the Solar Energy System Overlay District as regulated by _____ (special land uses) and _____ (site plan review).

Utility-Scale Solar Energy Systems

Section 2. Amendment of Section _____ of the Zoning Ordinance Section

_____ of the Zoning Ordinance, entitled "Establishment of Districts," is amended to read as follows:

For purposes of innovative and flexible development, Wales Township has established the following overlay districts:

<u>Overlay District</u>	<u>Article</u>
SES Solar Energy System	—

Section 3. Addition of Definitions to _____ of the Township Zoning Ordinance

The following definitions are added to _____ of the Township Zoning Ordinance, consistent with the existing ordering of definitions in that section:

- A. Building Integrated Photovoltaics (BIVPs): A small, private Solar Energy System that is integrated into the structure of a building, such as solar roof tiles and solar shingles.
- B. Ground Mounted Solar Energy System: A Private or Utility-Scale Solar Energy System that is not attached to or mounted to any roof or exterior wall of any principal or accessory building.
- C. Maximum Tilt: The maximum angle of a solar array (i.e., most vertical position) for capturing solar radiation as compared to the horizon line.
- D. Minimum Tilt: The minimal angle of a solar array (i.e., most horizontal position) for capturing solar radiation as compared to the horizon line.
- E. Private Solar Energy System: A Solar Energy System used exclusively for private purposes and not used for any commercial resale of any energy, except for the sale of surplus electrical energy back to the electrical grid.
- F. Roof or Building Mounted Solar Energy System: A Private Solar Energy System attached to or mounted on any roof or exterior wall of any principal or accessory building, but excluding BIVPs.
- G. Solar Energy System: Any part of a system that collects or stores solar radiation or energy for the purpose of transforming it into any other form of usable energy, including the collection and transfer of heat created by solar energy to any other medium by any means.
- H. Utility-Scale Solar Energy System: A Solar Energy System in which the principal design, purpose, or use is to provide energy to off-site uses or the wholesale or retail sale of generated electricity to any person or entity.
- I. Non-Participating Property: A property that is not subject to a Utility Scale Solar Energy System lease or easement agreement at the time an application is submitted for a Special Land Use for the purposes of constructing a Utility Scale Solar Energy System.
- J. Participating Property: A property that participates in a lease or easement agreement, or other contractual agreement, with or that is owned by an entity submitting a Special Land Use Permit application for the purpose of developing a Utility Scale Solar Energy System.
- K. Owner/Operator: A person or entity that owns or operates a Utility Scale Solar Energy System. "Owner/operator," even when used in the singular, may refer to more than one person or entity if there are multiple owners or operators, or the Utility Scale Solar Energy System is owned and operated by different entities. "Owner/operator" includes any successor to the original owner/operator. "Owner/operator" may or may not be the same as the applicant.

Section 4. Addition of New Section _____, entitled "Solar Energy Systems"

Section _____, entitled "Solar Energy Systems," is added to the Township's Zoning Ordinance and reads as follows:

Section _____ . Solar Energy Systems.

- A. General Provisions. All Solar Energy Systems are subject to the following requirements:
 - 1. All Solar Energy Systems shall conform to the provisions of this Ordinance and all county, state, and federal regulations and safety requirements, including applicable building

codes and applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriter Laboratory (UL), National Electrical Code (NEC), National Fire Protection Association (NFPA), and the most current Michigan Uniform Building Code adopted by the enforcing agencies.

2. If an applicant, operator, or landowner of a Solar Energy System fails to comply with this Ordinance, the Township, in addition to any other remedy under this Ordinance, may revoke any approvals after giving the applicant notice and an opportunity to be heard. Additionally, the Township may pursue any legal or equitable action to abate a violation and recover any and all costs, including the Township's actual attorney fees and costs.

B. Private Solar Energy Systems.

1. Administrative Review. Except as provided in subsection (d) below, all Private Solar Energy Systems require administrative approval as follows:

a. Application to Zoning Administrator. An applicant who seeks to install a Private Solar Energy System shall submit an application to the Zoning Administrator on a form approved by the Township Board.

b. Application Requirements. The application shall include:

1. A site plan depicting setbacks, panel size, and the location of property lines, buildings, fences, greenbelts, and road right of ways. The site plan shall be drawn to scale.
2. Photographs of the property's existing condition.
3. Renderings or catalogue cuts of the proposed solar energy equipment.
4. A certificate of compliance demonstrating that the system has been tested and approved by Underwriters Laboratories (UL) or other approved independent testing agency acceptable to Township.
5. A copy of the manufacturer's installation directions.

c. Zoning Administrator Authority. The Zoning Administrator is authorized to approve, approve with conditions, or deny applications for Private Solar Energy Systems. An aggrieved party may appeal the Zoning Administrator's decision to the Zoning Board of Appeals pursuant to Section _____ of the Zoning Ordinance.

d. Exclusions from Administrative Review. Administrative review is not required for (i) a single solar panel with a total area of less than eight square feet; and (ii) repair and replacement of existing solar energy equipment if there is no expansion of the size or area of the solar energy equipment.

2. Private Solar Energy System BIVPs. Private Solar Energy System BIVPs are permitted as accessory uses in all zoning districts, subject to administrative approval as set forth in this section. A building permit is required for the installation of BIVPs.

3. Roof or Building Mounted Private Solar Energy Systems. Roof or Building Mounted Private Solar Energy Systems are permitted in all zoning districts as an accessory use, subject to administrative approval as set forth in this section and subject to the following requirements:

a. Safety. A Roof or Building Mounted Private Solar Energy System shall be installed, maintained, and used only in accordance with the manufacturer's instructions, and it shall comply with all applicable construction code and electric code including the most current version of the Michigan Uniform Building Code and National Electrical Code adopted by the enforcing agencies.

b. Building Permit. A building permit is required for installation of a Roof or Building Mounted Private Solar Energy System.

c. Maximum Height. No part of the Solar Energy System mounted on a roof is permitted to extend more than five feet beyond the peak of the roof or to exceed the maximum building limitation for the zoning district in which it is located. No part of a Solar Energy System mounted on a roof is to project beyond the eaves of the roof.

d. Location. If the Solar Energy System is mounted on a building in an area other than the roof, no part of the Solar Energy System is permitted to extend beyond the wall on which it is mounted. A Solar Energy System mounted on a building wall may not face an adjacent public right-of-way.

e. Appearance. Roof or Building Mounted Private Solar Energy Systems shall be neutral in color and substantially non-reflective of light.

f. Abandonment. If a Roof or Building Mounted Private Solar Energy System has been abandoned for a period of six months, the property owner shall remove it within three months after the date of abandonment.

g. Nonconforming Buildings. A Roof or Building Mounted Private Solar Energy System installed on a nonconforming building or structure is not considered an expansion of the nonconformity, but it shall meet all height and placement requirements of the zoning district and this section.

h. Inspection. The Zoning Administrator may inspect a Private Solar Energy System for compliance with this ordinance upon providing reasonable notice to the property owner or occupant.

4. Ground Mounted Private Solar Energy Systems. Ground Mounted Private Solar Energy Systems are permitted in all zoning districts as an accessory use, subject to administrative approval as set forth in this section and subject to the following requirements:

a. Safety. A Ground Mounted Private Solar Energy System shall be installed, maintained, and used only in accordance with the manufacturer's instructions, and it shall comply with all applicable construction code and electric code including the most current version of the Michigan Uniform Building Code and National Electrical Code adopted by the enforcing agencies. The Ground Mounted Private Solar Energy System shall be permanently and safely attached to the ground.

b. Building Permit. A building permit is required for installation of a Ground Mounted Private Solar Energy System.

c. Maximum Height. A Ground Mounted Private Solar Energy System shall not exceed the maximum building height for adjacent accessory buildings and shall not exceed 16 feet above the ground when oriented at maximum tilt.

d. Location. A Ground Mounted Private Solar Energy System shall be located in the rear yard or side yard and meet the applicable setback requirements for the zoning district in which it is located.

e. Underground Transmission. All power transmission or other lines, wires, or conduits from a Ground Mounted Private Solar Energy System to any building or other structure shall be located underground. If batteries are used as part of the Ground Mounted Private Solar Energy System, they shall be placed in a secured container or enclosure.

f. Screening. Greenbelt screening is required around any Ground Mounted Private Solar Energy System and around any equipment associated with the system to obscure, to the greatest extent possible, the Solar Energy System from any adjacent residences. The greenbelt shall consist of shrubbery, trees, or other non-invasive plant species that provide a visual screen. In lieu of a planting greenbelt, a decorative fence that is at least 50% opaque (meeting the requirements of this Ordinance applicable to fences) may be used if approved by the Planning Commission.

g. Lot Area Coverage. The area of the Ground Mounted Private Solar Energy System shall not exceed 50% of the square footage of the principal building on the property. If the property is two acres or less in size, a Ground Mounted Private Solar Energy System is not considered an accessory building or structure for purposes of Section _____.

h. Appearance. The exterior surfaces of a Ground Mounted Private Solar Energy System shall be generally neutral in color and substantially non-reflective of light.

i. Abandonment. If a Ground Mounted Private Solar Energy System has been abandoned, the property owner shall notify the Township and remove the system within three months after the date of abandonment.

j. Nonconforming Buildings. A Ground Mounted Private Solar Energy System installed on a nonconforming building or structure is not considered an expansion of the nonconformity, but it shall meet all height and placement requirements of the zoning district and this section.

k. Inspection. The Zoning Administrator may inspect a Private Solar Energy System for compliance with this ordinance upon providing reasonable notice to the property owner or occupant.

C. Utility-Scale Solar Energy Systems. Utility-Scale Solar Energy Systems are permitted by Special Land Use approval in the Solar Energy System Overlay District and require a special land use permit under _____ and site plan approval under _____. Utility-Scale Solar Energy Systems are also subject to the following requirements:

1. Special Land Use Permit Application Requirements. In addition to the requirements of _____, the applicant for a Utility-Scale Solar Energy System shall provide the Township with all of the following:

a. Application fee in an amount set by resolution or fee schedule approved by the Township Board.

b. A deposit for an escrow account in an amount set by resolution or fee schedule approved by the Township Board. The escrow account is used to cover all costs and expenses associated with the special land use review and/or approval process, which costs can include, but are not limited to, review fees of the Township Attorney, Township Planner, and Township Engineer, as well as any reports or studies which the Township anticipates will be required during the review and/or

approval process for the application. At any point during the review process, the Township may require that the applicant place additional monies into escrow with the Township if the existing escrowed funds on account with the Township will be insufficient, in the determination of the Township, to cover any remaining costs or expenses with the review and/or approval process. If additional funds are required by the Township to be placed in escrow and the applicant refuses to do so within 14 days after receiving notice, the Township will cease the zoning review and/or approval process until and unless the applicant makes the required escrow deposit. Any escrow amounts in excess of actual cost will be returned to the applicant. An itemized billing of all expenses will be provided to the applicant upon request.

c. A list of all parcel numbers that will be used by the Utility-Scale Solar Energy System; documentation establishing ownership of each parcel; and any and all lease or option agreements, easements, or purchase agreements for the subject parcels, together with any attachments to such agreements or easements.

d. An operations agreement setting forth the operations parameters, the name and contact information of the certified operator, the applicant's inspection protocol, emergency procedures, and general safety documentation.

e. Federal Employer Identification Number for current owner/operator is required at the time of application.

f. A written emergency response plan detailing the applicant's plan for responding to emergencies, including fire emergencies, and analyzing whether adequate resources exist to respond to fires and other emergencies. If adequate resources do not exist, the applicant shall identify its plan for providing those resources. The emergency plan shall include identification of potential hazards to adjacent properties, public roadways, and to the community in general that may be created, as well as plans for immediate cleanup, long-term monitoring, and continued mitigation efforts following an emergency.

g. A written description of the fire suppression system that will be installed, which shall identify the manufacturer of the fire suppression system and generally describe its operations and capacity to extinguish fires.

h. A written description of specialized training and/or equipment necessary for handling fires and/or other emergencies at the Utility Scale Solar Energy System site. The training plan must include, at a minimum, annual emergency response training for local firefighters and other local emergency personnel at the site of the Utility-Scale Solar Energy System.

i. A complete set of photographs, video, and topography map of the entire Participating Property prior to construction.

j. A copy of any power purchase agreement or other written agreement that the applicant has with an electric utility or any agreement or approval for interconnection between the proposed Utility-Scale Solar Energy System and an electric utility or transmission company.

k. A written plan conforming to the requirements of this ordinance for maintaining the subject property, including a plan for maintaining and inspecting drain tiles and addressing stormwater management.

l. A decommissioning and land reclamation plan describing the actions to be taken following the abandonment or discontinuation of the Utility-Scale Solar Energy System, including evidence of

proposed commitments with property owners to ensure proper final reclamation, repairs to roads, and other steps necessary to fully remove the Utility-Scale Solar Energy System and restore the subject parcels to as near as possible to the condition the subject parcels were in prior to being used as a Utility-Scale Solar Energy System.

m. Financial security that meets the requirements of this ordinance.

n. A plan for resolving complaints regarding but not limited to noise, glare, maintenance, and drainage from the public or other property owners concerning the construction and operation of the Utility-Scale Solar Energy System.

o. Identification of and a plan for managing any hazardous waste.

p. A transportation plan for construction and operation phases, including any applicable agreements with the Livingston County Road Commission and Michigan Department of Transportation.

q. An attestation that the applicant and owner of the subject property will indemnify and hold the Township and its officials, elected or appointed, harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Utility-Scale Solar Energy System.

r. A copy of the manufacturer's directions, instruction manual, and specification sheets including any unredacted safety manuals and Safety Data Sheets (SDS), for installing, maintaining, and using the Utility-Scale Solar Energy System.

s. A ground cover vegetation establishment and management plan that complies with this ordinance.

t. Proof of environmental compliance, including compliance with:

i. Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.);

ii. Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding County ordinances;

iii. Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.);

iv. Part 303, Wetlands (MCL 324.30301 et. seq.);

v. Part 365, Endangered Species Protection (MCL324.36501 et. seq.);

and any other applicable laws and rules in force at the time the application is considered by the Township.

u. Any additional information or documentation requested by the Planning Commission, Township Board, or other Township representative.

v. Insurance. Proof of the owner/operator's public liability insurance shall be provided at the time of application. If the applicant is approved, proof of insurance shall be provided to the Township annually thereafter. The policy shall provide for bodily injury and property damage and shall name Wales Township and each Participating Property owner as an additional insured. The owner/operator shall insure for liability for the utility scale solar system until removed for at least

\$25,000,000 per occurrence to protect the owner/operator, Township, and Participating Property owner. Proof of a current policy is required annually and shall be provided each year to the Township prior to the anniversary date of the Special Land Use Permit.

w. Compliance with the Michigan Uniform Building Code and National Electric Safety Code: Construction of a Utility Solar Energy Facility shall comply with the most current version of the Michigan Uniform Building Code and National Electrical Code adopted by the enforcing agencies as a condition of any Special Land Use Permit under this section.

x. Conceptual plan. A graphical computer generated depiction of how the Utility-Scale Solar Energy System will appear from all directions.

2. Site Plan Application Requirements.

a. Contents of Site Plan. In addition to the requirements in _____, the applicant shall, at its expense, provide a detailed application and site plan drafted to a scale of 1" = 200 feet with the following:

1. Location of all proposed structures, panels, equipment, transformers, and substations.
2. Location of all existing structures or dwellings on the parcel and location of all existing structures or dwelling on adjacent Non-Participating Property within 1000 feet of the property lines of any Participating Properties.
3. Depiction of all setbacks, property lines, fences, signs, greenbelts, screening, drain tiles, easements, flood plains, bodies of water, proposed access routes, and road rights of way.
4. Indication of how and where the system will be connected to the power grid.
5. Plan for any land clearing and grading required for the installation and operation of the system.
6. Plan for ground cover establishment and management.
7. Anticipated construction schedule and completion date. As a condition of any special land use or site plan approval, hours of construction shall be limited to Monday through Friday from 7:00 a.m. to 5:00 p.m. with no construction on Saturday, Sunday, or any federally recognized holiday.
8. Sound modeling study including sound isolines extending from the sound sources to the property lines.
9. Any additional studies requested by the Planning Commission, including but not limited to the following:
 - a. Visual Impact Assessment: A technical analysis by a third party qualified professional of the visual impacts of the proposed project, including a description of the project, the existing visual landscape, and important scenic resources, plus visual simulations that show what the project will look like (including proposed landscaping and other screening measures), a description of potential project impacts, and mitigation measures that would help to reduce the visual impacts created by the project.

b. Environmental Analysis: An analysis by a third-party qualified professional to identify and assess any potential impacts on the natural environment including, but not limited to, removal of trees, wetlands and other fragile ecosystems, wildlife, endangered and threatened species. If required, the analysis will identify all appropriate measures to minimize, eliminate or mitigate adverse impacts identified and show those measures on the site plan, where applicable.

c. Stormwater Study: An analysis by a third-party qualified professional studying the proposed layout of the Utility-Scale Solar Energy System and how the spacing, row separation, and slope affects stormwater infiltration, including calculations for a 100-year rain event. Percolation tests or site-specific soil information shall be provided to demonstrate infiltration on-site without the use of engineered solutions.

d. Glare Study: An analysis by a third-party qualified professional to determine if glare from the Utility-Scale Solar Energy System will be visible from nearby airports, air strips, residences, and roadways. The analysis will consider the changing position of the sun throughout the day and year and its influences on the utility-scale solar energy system.

e. Optional Conceptual Layout Plan. Applicants shall submit an optional conceptual layout plan for review prior to submission of a formal site plan. The conceptual site plan shall be reviewed by the Planning Commission to allow for discussion and feedback.

10. Approvals from Other Agencies. Final site plan approval may be granted only after the applicant receives all required federal, state and local approvals, including any applicable approval by the state historic preservation office. Applicant shall provide copies of all review letters, final approved plans, and reports issued by any other governing agencies to the Township.

11. The site plan must show the existing topographical grades in two-foot intervals and conditions of all Participating Property at the time of application.

12. A baseline soil test including Cation Exchange Capacity (CEC) shall be provided to the township prior to any construction.

13. A written description of how the applicant will address dust control during construction. Such plan shall, at a minimum, consist of water applications at least three times per day unless it has rained in the preceding three hours of the planned application.

14. Water Usage and Cleaning. The applicant shall detail the methodology planned for cleaning the solar panels, frequency, and listing of any and all detergents, surfactants, chemical solutions used for each cleaning, and sources of water used to facilitate panel restoration and maintenance.

3. Application Items as Substantive Requirements. The information, plans, documents, and other items identified as application requirements in this ordinance, including the site plan and special land use permit, are substantive requirements for obtaining approval for a Utility-Scale Solar Energy System. The Planning Commission is to review the sufficiency of the application materials. If the Planning Commission

determines that the substance of any application item is insufficient to protect the public health, safety, and welfare, the Planning Commission shall deny approval on that basis.

4. System and Location Requirements.

a. Utility-Scale Solar Energy Systems are to be located only in the Solar Energy System Overlay District.

b. Utility-Scale Solar Energy Systems shall be ground mounted.

c. Utility-Scale Solar Energy Systems (including all solar panels, structures, equipment, and fencing) shall be set back 500 feet from all Non-Participating Property lines (measured from the parcel line of the Non-Participating Property to the nearest fence line of the Utility-Scale Solar Energy System) and 750 feet from all public road rights-of-way measured from the nearest boundary of the public right-of-way. If a single Utility-Scale Solar Energy System is located on more than one lot, or if the adjacent parcel is owned by the same owner as the property on which the Utility-Scale Solar Energy System is located, then the lot line setbacks of this subsection do not apply to the lot lines shared by those lots.

d. Utility-Scale Solar Energy Systems shall be set back at least 150 feet from the edge of any wetland, shoreline, or drain. The Planning Commission may increase this setback requirement if the Planning Commission determines that such a setback is necessary to protect the public health, safety, and welfare.

e. Riparian buffers and filter strips, and where needed, denitrifying bioreactors, may be required and if required must be installed and maintained to the specifications required by the United States Department of Agriculture's Farm Service Agency (USDA/FSA). The buffers and filter strips are intended to reduce or eliminate sediment and nutrient loading of drainage ditches, streams, rivers, lakes, and other nearby waterways. If required, no structures may be placed within the buffer or filter strip areas. Depending upon the topography, soil, and other factors, buffer or filter strips will generally be between 33 feet and 164 feet wide, on both sides of ditches, streams, and other waterways.

f. The height of the Utility-Scale Solar Energy System and any mounts, buildings, accessory structures, and related equipment shall not exceed 16 feet when oriented at maximum tilt. The Planning Commission may allow a height of up to 20 feet if the applicant establishes that the lot is used for grazing by farm animals in a manner that requires increasing the height limit. Lightning rods may exceed 16 feet in height, but they shall be limited to the height necessary to protect the Utility-Scale Solar Energy System from lightning.

g. PV Array Components: PV array components shall be approved by the Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electronic Testing Laboratories (ETL), or other similar certification organization acceptable to the Township.

5. Permits. All required county, state, and federal permits shall be obtained before the Utility-Scale Solar Energy System begins operating.

6. Screening. Greenbelt screening is required around any Utility-Scale Solar Energy System and around any equipment associated with the system to obscure, to the greatest extent possible, the Solar Energy System from all sides and any open views from Non-Participating Property.

- a. Screening shall be installed to obscure the Utility Scale Solar Energy System and shall contain two rows of staggered evergreen trees planted not greater than twelve (12) feet apart trunk to trunk, and the two rows shall be no greater than ten (10) feet apart. Any substitution shall be approved in advance by the Planning Commission. No species of any Arborvitae shall be permitted.
- b. Planting shall be at least eight (8) feet tall at time of planting, measured from the top of the root ball to the base of the leader (not including the height of the leader) and reasonably expected to reach a height of ten (10) feet within three (3) growing seasons.
- c. The trees may be trimmed but shall maintain a height of at least eighteen (18) feet.
- d. Evergreen trees shall be Norway Spruce.
- e. Good arboricultural techniques shall be followed with respect to vegetation, including but not limited to, proper pruning, proper fertilizing, and proper mulching, so that the vegetation will reach maturity as soon as practical and will have maximum density in foliage. Dead or diseased vegetation shall be removed and shall be replanted in a manner consistent with this Section at the next appropriate planting time. Each dead or diseased vegetation shall be completely replaced at 50% as determined by the Zoning Administrator. Annual review by a Professional Arborist, paid for by the owner/operator, shall be performed to determine any plant/vegetation replacement necessary to remain in compliance with the ordinance.
- f. Utility-Scale Solar Energy Systems also shall comply with the landscaping standards in Section _____ of the Zoning Ordinance.
- g. Front, side, and rear yard screening is required if the Utility-Scale Solar Energy System is adjacent to a non-participating property.

7. Appearance. The exterior surface of the Utility-Scale Solar Energy System shall be generally neutral in color and substantially non-reflective of light.

8. Lighting. Lighting of the Utility-Scale Solar Energy System is limited to the minimum light necessary for safe operation. Illumination from any lighting shall not extend beyond the perimeter of the participating property. The Utility-Scale Solar Energy System shall not produce any glare that is visible to neighboring lots or to persons traveling on public or private roads. Flashing or intermittent lights are prohibited.

9. Security Fencing.

- a. Security fencing may be required by the Planning Commission to be installed around all electrical equipment related to the Utility-Scale Solar Energy System, including any transformers. Fencing shall be at least seven feet tall and be composed of woven agricultural wire. Barbed and razor wire is prohibited.
- b. A containment system shall surround any transformers in case of hazardous waste or oil spills.
- c. Appropriate warning signs shall be posted at safe intervals at the entrance and around the perimeter of the Utility-Scale Solar Energy System.
- d. Gate posts and corner posts shall have a concrete foundation.
- e. Gates shall be the same height and constructed of the same material as the fencing. Access, such as Knox box, shall be provided for emergency responders.

f. The Township may allow or require a fence design to allow for the passage of wildlife upon a finding that adequate access control and visual screening will be preserved.

g. Security fencing is subject to setback requirements. The security fence shall be locked, and a self-locking device shall be used. Lock boxes and keys (may be electronic such as keypad opener, if the passcode is provided to the Township and central dispatch for 911 service) shall be provided at locked entrances for emergency personnel access. Electric fencing is not permitted. A safety plan shall be in place and updated regularly with the local fire department having jurisdiction over the Utility-Scale Solar Energy System.

10. Noise. All sound measurements are to be instantaneous and shall not be averaged. The noise generated by a Utility-Scale Solar Energy System shall not exceed the following limits:

a. 40 dBA Lmax, as measured at the property line, between the hours of 7:00 a.m. and 9:00 p.m.

b. 35 dBA Lmax, as measured at the property line, between the hours of 9:00 p.m. and 7:00 a.m.

c. The owner/operator of the Utility Scale Solar Energy System shall annually provide for a sound analysis or modeling, conducted by an auditory expert chosen by the Township, at the expense of the applicant.

11. Underground Transmission. All power transmission, communication, or other lines, wires, or conduits from a Utility-Scale Solar Energy System to any building or other structure shall be located underground at a depth that complies with current National Electrical Code standards, except for power switchyards or the area within a substation.

12. Drain Tile Inspections. The Utility-Scale Solar Energy System shall be maintained in working condition at all times while in operation. The owner/operator shall identify and inspect all drain tiles at least once every two years by means of a robotic camera, with the first inspection occurring post construction but before the Utility-Scale Solar Energy System is in operation. The owner/operator shall submit proof of the inspection to the Township. The owner/operator shall repair any damage or failure of the drain tile within 60 days after discovery and submit proof of the repair to the Township. The Township is entitled, but not required, to have a representative present at each inspection or to conduct an independent inspection.

13. Fire Suppression. The Utility-Scale Solar Energy System shall include a fire suppression system that is specifically designed to immediately suppress and extinguish fires in any part of the Solar Energy System, including the panels, electrical equipment, and transformers. The owner/operator shall provide documentation establishing the effectiveness of the fire suppression system and the results of a third-party independent inspection of the fire suppression system.

14. Battery Storage. Commercial grid storage batteries or capacitor banks storing or returning supplemental power to the grid are not permitted in the District. Use of Batteries in commercial applications is only permitted as emergency backup for safety lighting and related computer infrastructures.

15. Inverters shall be set back at least 150 feet inside the boundary of a Solar Energy System Overlay District.

16. Stray Voltage Assessments: No stray voltage originating from a Utility Scale Solar Energy System may be detected on any Participating or Non-Participating property. A preconstruction stray voltage test shall be conducted on all Michigan Department of Agriculture & Rural Development (MDARD) registered livestock facilities located within a one-mile radius of the Participating Properties. The tests shall be

performed by an investigator approved by the Township. A report of the tests shall be provided to the owners of all property included in the study area. The applicant/landowner shall seek written permission from the property owners prior to conducting testing on such owners' property. Applicants/landowners shall not be required to perform testing on property where the owners have refused to grant permission to conduct the testing. The owner of any Participating Property included in the list of project parcels shall not refuse the stray voltage testing if they have a MDARD registered livestock facility on the Participating Property.

17. Ground Cover. The lot on which the Utility-Scale Solar Energy System is located shall be covered with vegetation until decommissioning. To meet this requirement, the lot shall include one or more of the following:

- a. Pollinator Habitat: A site designed to have vegetation that will enhance pollinator populations, including a diversity of flowering plants and wildflowers, and meets a score of 76 or more on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites.
- b. Conservation Cover: A site designed with practices to restore native plants, grasses, and prairie with the aim of protecting specific species or providing specific ecosystem services, such as carbon sequestration or soil health. The site shall be designed in partnership with a conservation organization or approved by the St Clair County Conservation District.
- c. Forage/Grazing: Sites that incorporate rotational livestock grazing and forage production as part of a vegetative maintenance plan.
- d. Agrivoltaics: Sites that combine raising crops for food, fiber, or fuel, and generating electricity within the project area to maximize land use.
- e. Ground cover shall be planted within four months of project completion, weather permitting.
- f. Invasive species and noxious weeds are not permitted and shall be removed in a timely manner.

18. Drainage. Drainage on the site shall be maintained in a manner consistent with, or improved upon, existing natural drainage patterns. Any disturbance to drainage or water management practices shall be managed within the property and on-site in order to not negatively impact surrounding properties as a result of the development. This shall be maintained for the duration of the operation and shall be able to be returned to pre-existing conditions following decommissioning. Any existing drainage tiles that are identified on the property shall be shown on the as-built drawings submitted following construction. Prior to the start of construction, any existing drain tile shall be inspected by robotic camera and the imagery submitted to the Township for baseline documentation on tile condition. Any damage shall be repaired, and a report submitted to the landowner and Township. While the facility is in operation, the owner/operator shall reinspect the drain tiles every three years by robotic camera for any damage and shall repair any damage within 60 days of discovery. The owner/operator shall report the inspection, along with any damage and repair, to the Township within 90 days after each three-year deadline. The Township reserves the right to have the Building Inspector or other agent present at the time of repair. Solar panel support structures and/or foundations shall be constructed to preserve any drainage field tile or system.

19. Access Routes. Access drives are subject to the approval of the St Clair County Road Commission to the extent of the Road Commission's jurisdiction. All access drives and roads within the site shall be adequately maintained for emergency vehicle use, including winter maintenance.

20. The owner/operator shall submit an As Built Drawing with dimensions relative to property lines of all new structures including inverters and buried cable both inside and outside fenced areas upon completion and before any power is supplied to the grid. The As Built Drawing shall be a scale of 1" =200 feet.

21. Signs. Signs are permitted but shall comply with _____. The lot shall include at least one sign identifying the owner and providing a 24-hour emergency contact telephone number.

22. Emergency Action Plan and Training. Before the Utility Solar Energy System is operational, the owner/operator shall provide the necessary training, equipment, or agreements specified in the application to Township or other emergency personnel.

23. Decommissioning and/or Abandonment.

a. If a Utility-Scale Solar Energy System is abandoned or otherwise non-operational for a period of six months, the owner/operator shall notify the Township and shall remove the system within six months after the date of abandonment. Removal requires receipt of a demolition permit and full restoration of the site in accordance with the provisions of this Ordinance and to the satisfaction of the Zoning Administrator. The site shall be filled and covered with topsoil and restored to a state compatible with the surrounding vegetation. The requirements of this subsection also apply to a Utility-Scale Solar Energy System that is never fully completed or operational if construction has been halted for a period six months.

b. The decommissioning plan shall be written to provide security to the Township for 125% of the cost to remove and dispose of all panels, removal of all wiring, footings, and pilings, (regardless of depth), and restoration of the land to its original condition. The value of decommissioning shall be determined by a third-party financial consultant or engineer selected by the Township and paid for by the developer. The decommissioning security shall be paid in cash to the Township. Once the value of decommissioning is determined, it shall be updated on a periodic basis of not less than every 2 years and additional security shall be required based on the average inflation rate of the preceding 2 years.

c. All abandonment and decommissioning work shall be done when soil is dry.

d. The ground shall be restored to its original topography within three hundred sixty-five (365) days of abandonment or decommissioning. An extension may be granted if a good faith effort has been demonstrated and any delay is not the result of actions or inaction of the owner/operator.

e. If land balancing is required, all topsoil will be saved and spread evenly over balanced area according to the existing topography map provided at the time of application.

f. An annual report shall be provided to the Zoning Administrator showing continuity of operation and shall notify the Zoning Administrator if the use is to cease, prior to decommissioning, or abandonment.

g. Continuing Obligations: Failure to keep any required financial security in full force and effect at all times while a Utility Solar Energy System exists or is in place shall constitute a material and significant violation of the Special Land Use Permit, and this Ordinance, and will subject the Utility Solar Energy System owner/operator (jointly and severally, if more there is more than one owner or operator) to all remedies available to the Township, including any enforcement action, civil action, request for injunctive relief, and revocation of the Special Land Use Permit.

h. The Township shall have the right to seek injunctive relief to effect or complete decommissioning, as well as the right to seek reimbursement from the owner/operator or landowner for decommissioning costs in excess of the amount deposited in escrow and to file a lien against any real property owned by the owner/operator or landowner for the amount of the excess, and to take all steps allowed by law to enforce said lien.

i. At the time of decommissioning, the Planning Commission may allow deviations from the above decommissioning requirements following notice and a public hearing in accordance with Section 103 of the Zoning Enabling Act.

24. Complaint Resolution. Utility Solar Energy Systems shall provide a complaint resolution process, as described below:

a. The site shall have signs posted with contact information to collect complaints related to the Utility Solar Energy System.

b. A log shall be kept by the owner/operator of all complaints received and shall be available to Township officials for review at the Township's request.

c. The owner/operator shall respond to complainants within ten (10) business days and shall provide notification to the Zoning Administrator.

d. Any resolution shall include lawful and reasonable solutions consistent with the Zoning Ordinance, which shall also be provided to the Zoning Administrator.

e. The owner/operator or its assigns reserve the right to adjudicate any claims made against it, including residential claims, in a court of competent jurisdiction. An annual report shall be submitted to the Zoning Administrator and the Township Board that details all complaints received, the status of complaint resolution, and actions taken to mitigate complaints.

25. Maintenance and Repair

a. Each Utility-Scale Solar Energy System shall be kept and maintained in good repair and condition at all times and the site shall be neat, clean, and free of refuse, waste, or unsightly, hazardous, or unsanitary conditions. All solar panels damaged beyond repair or use shall be replaced and removed from the project site within seven (7) days and shall be disposed of off-site in accordance with any state or federal requirements.

b. If the Township Board or Zoning Administrator determines that a Utility Scale Solar Energy System fails to meet the requirements of this Ordinance or the Special Land Use Permit, the Zoning Administrator or Township Board shall provide notice to the owner/operator of the non-compliance, and the owner/operator has 14 days to cure the violation. If the violation is a safety hazard as determined by the Zoning Administrator or Township Board, then the owner and/or operator has 7 days to cure the violation. If the owner and/or operator has not remedied non-compliance issues in the aforementioned time periods, the owner/operator shall immediately shut down the Utility Scale Solar Energy System and shall not operate, start or restart the Utility Scale Solar Energy System until the issues have been resolved. If the owner/operator fails to bring the operation into compliance, the Township may seek relief at law or equity to abate the nuisance and may also issue a municipal civil infraction citation. Each violation for which the owner/operator are deemed responsible shall result in a \$500.00 fine.

c. The owner/operator shall keep a maintenance log on the solar array(s), which shall be available for the Township's review within 48 hours of such request.

d. General Maintenance Bond. At the time of the Special Land Use application, the owner/operator shall submit two (2) third-party contractor bids for construction of all fencing, landscaping, and drainage improvements associated with the utility scale solar energy system. A performance bond in the amount of 125% of the higher bid shall be provided to the Township to ensure completion. The Township may use the bond to complete or repair any landscaping, fencing, or drainage infrastructure (including drain tiles).

26. Extraordinary Events. If the Utility-Scale Solar Energy System experiences a failure, fire, leakage of hazardous materials, personal injury, or other extraordinary or catastrophic event, the owner/operator shall notify the Township within 8 hours.

27. Annual Report. The owner/operator shall submit a report on or before January 1 of each year that includes all of the following:

- a. Amount of electric generation;
- b. Current proof of insurance with the township and Participating Property owner(s) shown as named insured;
- c. Verification of financial security; and
- d. A summary of all complaints, complaint resolutions, and extraordinary events.

Additionally, a representative of the owner/operator shall appear before the Planning Commission annually to report on the Utility-Scale Solar Energy System and address questions or concerns from the Planning Commission.

28. Inspections. The Township may inspect a Utility-Scale Solar Energy System at any time by providing 24 hours advance notice to the owner/operator.

29. Transferability. A special use permit for a Utility-Scale Solar Energy System is transferable to a new owner. The new owner shall register its name, Federal Employer Identification Number, and business address 30 days prior to the transfer date with the Township and shall comply with this Ordinance and all approvals and conditions issued by the Township. In the event of a sale or transfer of ownership and/or operation of the solar facility, the original security bond or escrow shall be maintained throughout the entirety of the process and shall not be altered.

30. Major and Minor Site Plan Amendments.

a. Major site plan amendments include those listed in Section _____ and any of the following:

- 1. Changes of the location of arrays, fencing, buildings, or ancillary equipment by 10 feet or more.
- 2. Any increase in the height of solar panels.

b. Minor site plan amendments include those listed in section _____ and any of the following:

1. Changes of the location of arrays, fencing, buildings, or ancillary equipment by less than 10 feet.

31. Remedies. If an owner/operator fails to comply with this Ordinance, the Township, in addition to any other remedy under this Ordinance, shall revoke the special land use permit and site plan approval after giving the owner/operator notice and an opportunity to be heard. Additionally, the Township may pursue any legal or equitable action to abate a violation and recover any and all costs, including the Township's actual attorney fees and costs.

Section 5. Validity and Severability.

If any portion of this Ordinance is found invalid for any reason, such holding will not affect the validity of the remaining portions of this Ordinance.

Section 6. Repealer.

All other ordinances inconsistent with the provisions of this Ordinance are hereby repealed to the extent necessary to give this Ordinance full force and effect.

Section 7. Effective Date. This Ordinance takes effect seven days after publication as provided by law.

MAP A
OVERLAY DISTRICT BOUNDARIES

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