

Revised March 6, 2025

# SOLAR ORDINANCE, TOWNSHIP OF MINDEN, SANILAC COUNTY, MICHIGAN.

WHEREAS this Board desires to enact the following ordinance regulating the operation or maintenance of Solar Energy Facilities in Minden Township.

THE TOWNSHIP OF MINDEN ORDAINS,

## **SECTION 9.08.00. TITLE**

This ordinance may be known and may be cited as “Ordinance Regulating the Operation and Maintenance of Solar Energy Facilities in Minden Township.”

## **SECTION 9.08.01 PURPOSES AND OBJECTIVES**

The purpose and objectives for which this ordinance is passed are as follows:

- A. To preserve the dignity and aesthetic quality of the environment in Minden Township.
- B. To preserve the physical integrity of land in close proximity to residential areas.
- C. To protect and enhance the economic viability and interests of the citizens and residents of Minden Township who have made substantial financial investments in homes, businesses, and industry in Minden Township.
- D: To facilitate the construction, installation, operation, and decommissioning of utility scale production Solar Energy Facilities (SEFs) in the Township of Minden in a manner that minimizes the adverse impacts to residential, forestry, agricultural, and wildlife interests.

## **SECTION 9.08.02 CONFLICTING REGULATIONS**

Whenever any provision of this Ordinance imposes more stringent requirements, restrictions or limitations than are imposed or required by the provisions of any other law or ordinance, the provisions of this Ordinance shall govern.

## **SECTION 9.08.03 DEFINITIONS**

For the purpose of this ordinance, certain terms and words are hereby defined; words used in the present tense shall include the future; words used in the singular number shall include the plural number; and the plural the singular; and the word “shall” be mandatory and not discretionary. Solar Energy Facility’s will be referred to, in this ordinance as **SEF**.

- A) Abandonment:** to give up, discontinue, withdraw from any Solar Energy Facility or SEF that ceases to produce energy for 12 continuous months will be considered abandoned.
- B) Building:** Any structure having a roof supported by columns or walls, and designated or intended for the shelter, support, enclosure or protection of persons, animals or chattels.
- C) Decommissioning plan:** A document that details the planned shut down or removal of a SEF from operation or usage.
- D) Fence:** A continuance barrier extending from the surface of the ground to a uniform height of not less than seven (7) feet from the ground at any given point, constructed of wood, stone, steel, or other metal, or any substance of a similar nature and strength.
- E) Glare:** The effect produced by light with and intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.
- F) Improved Area:** Area containing solar panels, electrical equipment, access road within perimeter fencing, and storage buildings.
- G) Public Road:** Any road or highway located within the Township of Minden which is now or hereafter designated and maintained by the Township of Minden, County of Sanilac or the Michigan Department of Transportation as part of the State Highway System. Whether primary or secondary, hard surfaced or other dependable roads which provide access to residential areas.
- H) Residence:** A building used as a dwelling for one or more families or persons.
- I) Solar Energy Facility (SEF):** An area of land principally used to convert solar energy to electricity, which includes, but is not limited to, the use of one or more utility scale production solar energy systems.
- J) Solar Energy System:** Any device or structural design feature used for the collection, storage, and distribution of utility scale solar energy production for space heating, space cooling, lighting, electric generation, or water heating.
- K) Utility Scale:** A commercial SEF or Solar Energy System with the primary purpose of wholesale or retail sales of generated electricity.
- L) Township:** Township shall mean the Township of Minden, Sanilac County, Michigan.
- M) National Electrical Code (NEC).**

**SECTION 9.08.04 DEVELOPMENT USES, REQUIREMENTS AND RESTRICTIONS**

All listed principal permitted uses in the underlying zoning district of this overlay zone are permitted. All listed discretionary conditional, special approval or special land uses in the underlying zoning district of the overlay zone are subject to conditional use or special land use permit process and review. Solar Energy Systems are special approval uses in a SEF overlay zoning district. Although other local, state and federal regulations may apply to the construction of this SEF the regulations set forth in the NEC are primary. The SEF Overlay Zoning District shall encompass all incorporated and unincorporated areas of the Township of Minden except for the Village of Minden City and shall be considered a special land use subject to special land use approval in every zoning district.

**SECTION 9.08.05 PERMITTED ZONES**

In any Solar Energy zoning district, the Planning Commission shall review all the SEF land use applications, subject to the restrictions contained in this ordinance.

**SECTION 9.08.06 PROHIBITIONS**

It shall be unlawful after the effective date of this Ordinance for any person, firm, corporation, or other legal entity to operate, maintain or establish in any area of Minden Township a SEF which the site plan has not been recommended by the Minden Township Planning Commission and approved by the Minden Township Board. Any modifications or upgrades to an existing SEF that increases the area by any amount of the original footprint or changes the solar panel type or capacity shall be subject to new land use approval.

**SECTION 9.08.07 LOCATION**

- A. All SEFs must comply with the requirements established in the Minden Township Zoning Ordinance.
- B. All SEFs shall be considered a **special use** within Minden Township, subject to the restrictions contained in the Ordinance.
- C. All improved areas, including material disposal areas, shall be at least 50 feet from the road right of way and 50 feet from a non-participating property line.
- D. All improved areas shall maintain a 150-foot set-back from all residential boundaries.
- E. All improved areas shall maintain a 450-foot set-back from a residential structure.
- F. Setback requirements between 2 participating parcels with development contracts that contain consistent terms of years and with the same developer for project may be waived.

- G. All improved area(s) located in a residential area shall have a minimum landscape buffer within 150 feet that is adequate to maximize landscape screening on an individual resident basis. The buffer shall contain evergreen trees or bushes planted at a minimum 8 feet apart and maximum 30 feet apart and at least 4 feet tall at the time of planting as designated by land use permit. The buffer shall obtain a height of 10 feet within 10 years. Applicant shall be responsible for maintaining the landscape buffer and all setback areas landowner does not maintain. Farming shall be considered maintenance.
- H. Any property adjacent or abutting Railroad easements shall comply with Railroad and Federal policies.
- I. Setback requirement from any recorded or filed drainage easement may be waived.
- J. The number of total acres, directly dedicated to solar arrays allowed by Special Use Permits to be used as Solar Energy Facilities shall not exceed ten (10%) percent of the overall land in Minden Township as defined by the Master Plan. Acreage for this purpose shall be defined by the number of acres of area directly dedicated to fenced solar arrays within parcels leased, contracted, or purchased by Special Use Permit applicant for the purpose of installing a Solar Energy Facility. The Planning Commission shall deny any Special Use Permit application that requests a number of acres that exceed ten (10%) percent of Township Land.

**SECTION 9.08.08 SECURITY AND SAFETY**

- A. All Solar Energy Systems and SEFs must conform to all applicable federal, state, county and township requirements, as well as any applicable industry standards.
- B. SEFs shall be completely fenced. No fences shall be less than seven (7) feet in height. The perimeter fence shall be signed to restrict unauthorized access.
- C. Each owner, operator or maintainer of a SEF to which this Ordinance applies, and who chooses to use vegetation as defined in Section 9.08.07 above with wire fence, shall utilize good husbandry techniques with respect to said vegetation, including but not limited to pruning, proper fertilizing, and proper mulching, so that the vegetation will reach maturity as soon as practical and will have maximum density of foliage. Dead or diseased vegetation shall be removed and must be replanted at the next appropriate planting opportunity. Plants or grasses not part of landscaping shall be maintained by the facility operator not to exceed twelve (12) inches in height. This portion of the ordinance will be subject to annual inspection, conducted by the township supervisor or representative appointed by the township board.

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- D. All access doors to solar buildings and electrical equipment shall be locked at all times when unattended.
- E. The applicant shall be responsible for maintenance of the access roads.

**SECTION 9.08.09 GLARE AND SOLAR RADIATION**

- A. All SEFs shall be placed such that concentrated solar radiation, or glare does not project onto nearby structures, properties, or roadways.
- B. Lighting must follow the Minden Township Zoning Ordinance. Outdoor lighting shall be designed to direct light to the ground and not up into the sky. No flickering or flashing lights shall be permitted. No System or any of its components shall be illuminated, except to the degree necessary for public safety or maintenance. Lighting shall not extend beyond the Solar Energy System perimeter.
- C. Must have glare reduction-anti reflective coating on solar panels and any reflective service in the SEF according to FAA regulations.
- D. The applicant has the burden of providing that any glare produced does not have significant adverse impact on neighboring or adjacent properties. Any written complaints of will be resolved by Minden Township's Complaint Resolution Board (section 09.08.21).

**SECTION 9.08.10 NOISE**

- A. A noise study will be performed and included in the application. The noise study will be performed by an independent noise study expert and paid for by the applicant. Audible noise or the sound pressure level from the operation of the SEF shall not exceed forty-five (45) dBA, or the ambient sound pressure level plus five (5) dBA, whichever is greater, for more than ten (10%) percent of any sixty (60) minute interval, measured at any property line existing on the date of approval of any SEF special approval permit. The applicant shall be able to provide sound pressure level measurements from a reasonable number of sampled locations at the perimeter and the interior for the SEF to demonstrate compliance with this standard. The studies will be done before and after completion of project.
- B. In the event audible noise from the operation of the SEF contains a steady pure tone, the standards for audible noise set forth in subparagraph a) of this subsection shall be reduced by five (5) dBA. A pure tone is defined to exist if the one-third (1/3) octave band sound pressure level in the band, including the tone, exceeds the arithmetic average of the sound pressure levels of two (2) contiguous one-third (1/3) octave bands by five (5) dBA for center frequency of five hundred (500) Hz and above, by eight (8) dBA for center frequencies

between one hundred and sixty (160) and four hundred ninety-nine (499) Hz, or by fifteen (15) dBA for center frequencies less than or equal to one hundred and twenty-five (125) Hz.

**SECTION 9.08.11 SIGNAL INTERFERENCE**

- A. No SEF shall be installed in any location where its proximity to existing fixed broadcast, retransmission, or reception antennas for radio, television, wireless phone or other personal communication system would produce consistent and noticeable electromagnetic interference with signal transmission or reception.
- B. No SEF shall be installed in any location along the major axis of an existing microwave communications link that is filed in the records of the FCC where its operation is likely to produce electromagnetic interference in the link's operation.
- C. Notwithstanding the foregoing, an approval may be issued under this Article if Applicant demonstrates an ability to remedy any interference described above with the use of signal repeaters or other proven mitigation measures.

**SECTION 9.08.12 SUPPLEMENTAL REGULATIONS**

- A. The manufacturers or installer's identification and appropriate warning sign shall be posted on or near the panels in a clearly visible manner.
- B. On site power lines between solar panels and inverters shall be placed underground. Depth of bury shall be a minimum of 6' outside improved areas.
- C. The design of SEFs buffers shall use materials, colors, textures, screening and landscaping, that will blend the facility into the natural setting and existing environment. Green would be acceptable.
- D. The applicant must obtain a driveway permit from the Sanilac County Road Commission for any new driveways.
- E. The design and construction of SEFs shall not produce light emissions, either direct or indirect (reflective), that would interfere with pilot vision. The applicant shall use measures to reduce the visual impact of solar panels to the greatest extent possible.
- F. The design and construction of SEFs shall not produce electrical emissions that would interfere with aircraft communications systems or navigation equipment.
- G. The design and construction of SEF's should not include new water wells.

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- H. A copy of any and all contracts for the utility company that will be purchasing electricity from the proposed site shall be provided to the Township.
- I. An affidavit or evidence of an agreement between the lot owner and the Facility's owner or operator confirming the owner/operator has permission for construction and operation of the SEF will be provided to the Planning Commission.
- J. Any other relevant studies, reports, certificates, approvals permits and licenses, as may be reasonably required by the State of Michigan, County of Sanilac and the Township of Minden will be provided to the Planning Commission.
- K. A description of the proposed technology to include, type of solar panel and system, fixed mounted verses solar tracking, number of panels, and angles of orientation **shall** be provided to planning commission.
- L. An informational sign shall be posted, maintained and updated at the entrance(s) which list the name and phone number of the owner/operator and identify a person responsible for the public to contact with inquiries and complaints throughout the life of the project and provide this number and name to Minden Township. The SEF owner/operator shall respond to the public's inquiries and complaints. Any complaints of will be resolved by Minden Township's Complaint Resolution Board (section 09.08.21).
- M. Any erosion or flooding of property resulting from the construction of SEF structures or access roads, whether in the Special Land Use area or not, is the responsibility of the developer/owner/operator of the SEF.
- N. Existing structures and landscaping on adjacent properties shall not be removed, altered, or affected by Solar Energy Systems.
- O. **Transfer of Ownership / Operation.** Prior to a change in the ownership or operation of a Solar Energy Facility, including, but not limited to, the sale or lease of that Facility or the underlying property, the current landowner, facility owner or operator shall provide written notice to the Township at least 60 days prior to that change becoming effective. This notice shall inform the Township of the intended transfer of control of the Solar Energy Facility and shall include a copy of the instrument or agreement affecting that transfer. Such an instrument or agreement shall include an express statement that the new owner or operator of the Solar Energy Facility shall not be permitted to operate that System until compliance with the terms of this Ordinance, including requirements for continuing decommissioning funds, and any other required funding has been established.

**SECTION 9.08.13 SITE PLAN REQUIRED/REVIEW**

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SEFs shall not be located, constructed, erected, altered, or used without first obtaining an SEF special land use recommendation for approval issued by the Township Planning Commission pursuant to this Ordinance. An applicant proposing an SEF must submit the following site plan materials.

- A. A detailed site plan of the property showing existing features such as contours, buildings, roads, overhead public utility lines, zoning district, and ownership of property, and vehicle access.
- B. Plan(s) showing location of proposed SEFs (with possible deviation), underground and overhead wiring (including the minimum depth of underground wiring), new drainage facilities (if any), access roads, (including minimum width), substation and accessory structures;
- C. A description of the routes to be used and of any road improvements that will be necessary in the Township to accommodate construction vehicles, equipment or other deliveries, and an agreement or bond which guarantees the repair of damage to public roads, field tile and other areas caused by construction of the SEF.
- D. Engineering data concerning construction of the SEFs and its base or foundation.
- E. The SEF must be engineered and constructed in such a manner that upon removal of said SEF, the soil will be restored to its original condition to a minimum depth of three (3) feet, SEF equipment **shall** be removed completely and returned to original land use.
- F. Anticipated construction schedule;
- G. Description of operation, including anticipated regular scheduled maintenance;
- H. Complaint resolution policy and procedures manual. Procedures will be in alignment with wind energy complaint resolution policy;
- I. Project must be registered with Miss Dig prior to commissioning;
- J. Proof of liability insurance prior to the start of construction for all contractors and sub-contractors that are part of the project;
- K. Indemnity Clause. Applicant agrees to defend, indemnify and hold harmless the Township from and against, and to reimburse the Township with respect to, all liabilities, losses, costs and expenses, including, without limitation, reasonable attorneys' fees and disbursements, asserted against or incurred by the Township by reason of, arising out of, or in connection with any Solar Energy Facility, or Solar Energy Project both during construction and during operation.

- L. The applicant shall maintain a current general liability policy covering bodily injury and property damage with limits appropriate to the size of the solar facility. Applicant shall carry dollar amount limits per occurrence, aggregate coverage, and deductible amounts, all of which shall be agreed upon by the owner / operator and Planning Commission. All applicants shall be required to provide proof that they meet the insurance requirements to the Planning Commission prior to approval;
- M. Construction Bond. Applicant shall file a construction performance bond or other acceptable agreement, in an amount determined by the Township Board, to ensure that, in the event that the project is not completed, the project site and other affected private or government properties (e.g., roads, ditches, bridges, etc.) will be restored to pre-construction condition. The bond shall be terminated upon timely completion of construction and activation of the facility;
- N. Road Commission. Applicant shall file a sufficient bond for indemnification of the road commission.
- O. Decommissioning plan and bond. Applicant shall file a decommissioning plan and an agreement that, upon activation of the facility, a decommissioning bond or equivalent financial instrument shall be posted (See "Decommissioning").
- P. The applicant must also obtain a building permit from the Sanilac County Department of Construction and Land Use and a permit from the Sanilac County Road Commission and/or Michigan Department of Transportation (MDOT) for driveways to connect access roads to existing County roads and from the Sanilac County Drain Commission for any culverts or other drainage facilities.
- Q. Any drainage tiles or drainage structures affecting adjacent properties shall be repaired/restored to pre-project condition.
- R. 3 sets of as-built drawings will be provided to the Township Board at the completion of the project.
- S. The township board will require notice within three (3) months of the notice of transfer or transfer of bond for the approved SEF. Further, the subsequent owner must immediately provide evidence to the Township that a sufficient bond obtained by new owner.
- T. No energy storage (battery) facilities will be considered under this Special Land Use permit. A separate permit will have to be applied for.
- U. Property Value Impact: Upon request of the planning commission a report shall be provided of the impact on adjacent property values prepared by a qualified, independent

third-party, such as a licensed real estate appraiser; and should include mitigation strategies for any identified adverse impacts.

- V. **Visual Impact Assessment:** A 3-D simulation or rendering depicting visual impact of any SEF on a neighboring residence shall be completed and submitted as part of the Site Plan.

**SECTION 9.08.14 SPECIAL LAND USE PERMITS.**

The Solar Special Land Use shall consist of the parcels identified as within the Planning Commission’s jurisdiction in Minden Township. The Planning Commission will consider special land use permit requests for SEFs in any incorporated or unincorporated area within the Township excluding the Village of Minden City.

**SECTION 9.08.15 APPLICATION FEE**

- A. An applicant for a SEF special approval permit shall remit an application fee and a fee per mega of nameplate capacity to the Township including with all applications in the amount specified in the fee schedule. This fee (which may be adjusted from time to time) is based on the Township review costs, and shall include, but not limited to, such costs as meeting expenses, publication and notification expenses, related attorney fees, and other costs as may be incurred by the Township during the application and review process.
- B. **Enforcement and Compliance Escrow Deposit.** In addition to the application fee (as noted above), a SEF applicant shall fund a continuing escrow deposit in the form of a cash deposit to be collected by the Township and held in a local financial institution prior to the commencement of construction of any SEF. The funding of the escrow deposit shall be maintained by the Solar Energy System operator until the Solar Energy System has been permanently decommissioned and removed. The monetary amount placed by the applicant in escrow with the Township shall be estimated by the Township to cover all reasonable costs and expenses associated with continuing enforcement of this Ordinance and the terms of the Special Approval Permit. Costs can include, but are not limited to, meeting expenses, publication and notification expenses, costs for any required reports or studies, attorney fees, and other costs as may be incurred by the Township during the application, review, and operational process. If the escrow amount paid by the applicant proves to be insufficient to cover the Township’s enforcement costs, the Township may require the applicant to place additional funds into escrow with the Township.

**SECTION 9.08.16 APPLICATION PROCEDURES**

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A developer/operator of any SEFs within the overlay zone shall comply with the following procedures for application for land use permit:

- A. Make application for a special approval land use permit for the SEF to the Planning Commission as generally required by the zoning ordinance and as specifically required by this Article. The application for special approval land permit for SEFs will be accompanied by the required fees and information as required in this Article.
- B. The Planning Commission will review the application in a public meeting which shall be noticed pursuant to the special approval provisions of this zoning Ordinance and the Michigan Zoning Enabling Act (Act 110 of 2006; MCL 125.3101 et seq.)

#### **SECTION 9.08.17 ABANDONMENT AND DECOMMISSIONING**

- A. At time of application for special land use permit, the applicant shall submit a plan describing the intended disposition of the alternative energy project at the end of its useful life and shall describe any agreement with the landowner regarding equipment removal upon termination of the lease.
- B. Any SEFs left unused or inoperable for more than twelve (12) months would be deemed abandoned, to be disposed of by the application pursuant to the decommissioning plan.
- C. The land must be returned to its original state; including but not limited to all components of the SEF including removal of panels, wires, bases, berms, etc.; within six months of the determination of the abandonment.
- D. Any Concrete bases must be removed three (3) feet below ground level with appropriate drainage and filled with like soil that was removed.
- E. The application shall post a performance bond or equivalent financial instrument for decommissioning. The bond shall be in favor of Minden Township and shall be determined by the **Minden Township Board** and shall contain a replenishment obligation. Evidence of decommissioning bond may be in form of surety performance bond, or similar financial commitment to guaranty decommissioning of an abandoned site.
- F. Within six (6) months prior to the effective date of the performance bond or equivalent financial instrument the developer/applicant shall provide a report as to the estimated cost of decommissioning the project as of that date. The Township shall review the results and other such information as the Township may gather and shall adjust the initial amount of bond or equivalent financial instrument accordingly. Such adjustments shall be at the sole discretion of the Township.

- G. Four (4) years after effective date and every four (4) years after that, a bond or equivalent financial instrument of the developer/applicant shall provide a report as to the estimated cost of decommissioning the project as of that date. The Township shall review the results and other such information as the Township may gather and shall adjust the amount of the bond or equivalent financial instrument accordingly. Such adjustments shall be at the sole discretion of the Township.
- H. Should the developer/applicant fail to decommission the project following abandonment the Township shall have the authority to decommission the project, to sell scrap, and to use the salvage value to defray the costs of decommissioning the project.
- I. The decommissioning plan for SEFs within the Township will mirror the plan set forth in the Wind Energy section of the townships Zoning Ordinance to the extent said terms are not inconsistent with this ordinance section.

#### **SECTION 9.08.18 INSPECTIONS**

- A. The Township will conduct annual inspections of any and all SEFs. The cost of the annual Township inspection will be reimbursed to the Township by the Solar Energy Company's owner/operator through an escrow fund established pursuant to a schedule of "Fees and Permits" as adjusted from time-to-time by the Township Board. The inspections will consist of but not limited to evaluating compliance with the original contract terms; compliance with improvement and updates and evaluating compliance with the special land use permit. The Township Supervisor **shall** provide inspection protocols at completion of the project.

#### **SECTION 9.08.19 PENALTY**

- A. Violators of the provisions of this Ordinance shall be subject to a civil infraction penalty for each and every day of non-compliance. Pursuant to ACT XI of the Minden Township Ordinance.

#### **SECTION 9.08.20 COMPLIANCE**

- A. All structures shall comply with the area, setback and height requirements, unless different requirements are specified as a condition for a use permitted after special approval. Waivers will be considered.
- B. Upon request of the applicant, The Planning Commission may waive the setbacks to non-participating landowners' property only if the Planning Commission receives a written waiver request letter, which is signed and notarized by both the participating and non-participating landowners. This setback waiver will be fixed at no less than twenty-five (25) feet from property to improved area.

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**SECTION 9.08.21 COMPLAINT RESOLUTION**

A. The complaint resolution process for Minden Township will be identical to the “Wind Energy” process. See wind energy ordinance (9.07.06 J).

**SECTION 9.08.22 GOVERNING LAW**

A. Any contract related to the development or operation of a SEF under this ordinance shall be governed by the laws of the County of Sanilac, State of Michigan and the Federal Government and the regulations set forth in the National Electrical Code.