

**Caledonia Township  
Ordinance No. 2 of 2021**

**An ordinance to amend the Caledonia Township Zoning Ordinance Section  
Article 2 (Definitions), Article 5 (District Regulations, and Article 9  
(Supplemental Regulations) to provide standards for solar energy.**

Caledonia Township, Alcona County, Michigan ordains:

**Section 1: Amendment to the Caledonia Township Zoning Ordinance**

***That the Caledonia Township Zoning Ordinance, Section 2.1 (Definitions) is hereby amended to read as follows:***

**(ADD NEW) SOLAR ENERGY PANELS (ON-SITE ACCESSORY):** Solar collection devices designed to capture and utilize the energy of the sun to generate electrical power for use on-site. A solar collection device is the actual material(s) used to collect solar rays and all associated ancillary and structural devices needed to support and convert/transmit the energy collected.

**(ADD NEW) SOLAR ENERGY FACILITY (UTILITY SCALE OR COMMERCIAL):** A facility designed to capture and utilize the energy of the sun to generate electrical power to meet utility-scale or commercial needs primarily for use off-site. A solar energy facility consists of solar collection devices used to collect solar rays and all associated ancillary and structural devices needed to support and convert/transmit the energy collected. A solar energy facility (utility-scale or commercial) may be an accessory or principal use on the property.

***That the Caledonia Township Zoning Ordinance, Section 5.1 (Table of Uses Permitted by Right and Special Land Uses) is hereby amended to read as follows:***

**ADD THE FOLLOWING USES:**

<b>TABLE OF USES PERMITTED BY RIGHT &amp; SPECIAL LAND USES</b>									
<i>P = Permitted by right S = Permitted with a Special Use Permit *Supplemental Regulations</i>	R-1	R-2	R-3	R-4	AG	FR	C	CF	I
<b>UTILITIES/ENERGY/COMMUNICATIONS</b>									
<b>Solar Energy Panels (On-Site Accessory)</b>	<b>p*</b>				<b>p*</b>	<b>p*</b>	<b>p*</b>		<b>p*</b>
<b>Solar Energy Facility (Utility Scale or Commercial)</b>					<b>S*</b>		<b>S*</b>		

***That the Caledonia Township Zoning Ordinance, Article 9 (Supplemental Regulations) is hereby added to read as follows:***

**Section 9.30 Solar Energy Panels (On-Site Accessory).**

Solar energy panels shall be allowed as an accessory use in all zoning districts subject to the requirements below. Accessory solar energy panels shall not be located on a lot without a principal building. For freestanding solar energy panels, a plot plan pursuant to Section 7.1 shall be submitted to the Zoning Administrator. Repair or replacement of an existing panel does not require a review or permit provided there is no change in size, height, or coverage area. Building-mounted or roof-mounted solar energy panels are a Permitted Use and, while no zoning permit is required, compliance with this Section is required. The Zoning Administrator has the authority to review and issue permits for On-Site Accessory Solar Panels.

**A. Height.**

1. Ground-mounted or pole-mounted accessory solar energy panels shall not exceed twenty (20) feet in height when oriented at maximum tilt (measured from the ground at the base of the equipment).
2. Building-mounted or roof-mounted accessory solar energy panels shall not exceed the maximum allowed building height in any zoning district.

**Figure A**

**B. Yard Location and Setbacks.**

1. Ground-mounted or pole-mounted accessory solar energy panels located in the rear or side yard shall adhere to district setbacks for accessory buildings. A minimum setback of two hundred fifty (250) feet shall be required for ground-mounted or pole-mounted accessory solar energy panels located in the front yard. For the purposes of this Section, the front yard shall be defined as the open space extending the full width of the lot, the depth of which is the minimum horizontal distance between the front lot line and the nearest line of the principal building. (See Figure A).
  2. Building-mounted or roof-mounted accessory solar energy panels shall adhere to district setbacks for a main building.
- C. Glare.** Panels shall not result in glare onto adjoining properties or public rights of way.
- D. Coverage and Size.** Roof-mounted or building-mounted accessory solar energy panels shall allow for

adequate roof access for fire-fighting purposes. Ground-mounted or pole-mounted accessory solar energy panels shall not exceed twenty (20) percent of the building footprint for the principal building.



#### **E. Installation.**

1. Solar energy panels that are building-mounted shall be permanently and safely attached to the building or structure.
2. Solar energy panels that are ground-mounted shall be safely attached to the ground.
3. Solar energy panels that are mounted on the roof of a building shall be safely supported by the roof according to the manufacturer's specifications.
4. Solar energy panels shall be installed, maintained, and used only in accordance with the manufacturer's specifications.
5. Solar energy panels shall comply with building code, electrical code, and all other applicable regulations.

#### **Section 9.31 Solar Energy Facilities – Utility-Scale or Commercial (Large Solar Energy Systems).**

- A. **Purpose and Intent:** The purpose and intent of this Section is to establish standards for the siting, installation, operation, repair, decommissioning and removal of Large Solar Energy Systems.
- B. **Site Plan Drawing and Supporting Materials:** All applications for a Large Solar Energy Systems use must be accompanied by detailed site plans, drawn to scale and dimensioned and certified by a registered engineer licensed in the State of Michigan, displaying the following information:
1. All requirements for a site plan contained in Article 25 of the Caledonia Township Zoning Ordinance.
  2. All lot lines and dimensions, including a legal description of each lot or parcel comprising the Large Solar Energy System.
  3. Names of owners of each lot or parcel within Caledonia Township that is proposed to be within the Large Solar Energy System.
  4. Vicinity map showing the location of all surrounding land uses.
  5. Location and height of all proposed Solar Array(s), buildings, structures, electrical tie lines and transmission lines, security fencing, and all above-ground structures and utilities associated with a Large Solar Energy System.
  6. Horizontal and vertical (elevation) to scale drawings with dimensions that show the location of the proposed Solar Array(s), buildings, structures, electrical tie lines and transmission lines, security fencing and all above ground structures and utilities on the property.
  7. Location of all existing and proposed overhead and underground electrical transmission or distribution lines within the Large Solar Energy System and within one hundred (100) feet of all exterior property lines of the Large Solar Energy System.
  8. Proposed setbacks from the Solar Array(s) to all existing and proposed structures within the Large Solar Energy System.



9. Land elevations for the Solar Array(s) location and the relationship to the land elevations of all existing and proposed structures within the Large Solar Energy System at a minimum of five (5) foot contours.
  10. Access driveways within and to the Large Solar Energy System, together with a detailed narrative regarding dimensions, composition, and maintenance of each proposed driveway. All access drives shall be subject to Alcona County Road Commission approval and shall be planned so as to minimize the use of lands for that purpose.
  11. Planned security measures to prevent unauthorized trespass and access during the construction, operation, removal, maintenance or repair of the Large Solar Energy System.
  12. A written description of the maintenance program to be used for the Solar Array and other components of the Large Solar Energy System, including decommissioning and removal. The description shall include maintenance schedules, types of maintenance to be performed, and decommissioning and removal procedures and schedules if the Large Solar Energy System is decommissioned.
  13. Planned lightning protection measures.
  14. Additional detail(s) and information as required by the Conditional Use requirements of the Caledonia Township Zoning Ordinance, or as required by the Planning Commission.
- C. **Application Escrow Account:** An escrow account shall be deposited with the Township by the Applicant when the Applicant applies for a Conditional Use for a Large Solar Energy System. The monetary amount deposited by the Applicant in escrow with the Township shall be the amount of \$15,000 to cover all reasonable costs and expenses associated with the Conditional Use review and approval process, which costs shall include, but are not limited to, reasonable fees of the Township Attorney, Township Planner and Township Engineer, as well as costs for any reports or studies that are reasonably related to the zoning review process for the application. Such escrow amount shall be in addition to any filing or application fees established by resolution. At any point during the Conditional Use review process, the Township may require that the Applicant place additional funds into escrow with the Township if the existing escrow amount deposited by the Applicant is deemed insufficient by the Township. If the escrow account needs replenishing and the Applicant refuses to do so within thirty (30) days, the Conditional Use process shall cease unless and until the Applicant makes the required additional escrow deposit. Any applicable zoning escrow Resolutions or other Ordinances adopted by the Township must also be complied with by the Applicant. The Township shall provide a summary of all account activity to the Applicant within a timely manner upon request. Any funds remaining within the escrow after approval of the Conditional Use shall be returned in a timely manner to the Applicant.
- D. **Compliance with the County Building Code and the National Electric Safety Code:** Construction of a Large Solar Energy System shall comply with the National Electric Safety Code and the County Building Code (as shown by approval by the County) as a condition of any Conditional Use under this section. In the event of a conflict between the County Building Code and National Electric Safety Code (NESC), the NESC shall prevail.
- E. **Certified Solar Array Components:** Components of a Solar Array 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 if the similar certification organization is approved by the Township, which approval shall not be unreasonably withheld. All components within the Large-Scale Solar Energy System are highly encouraged to be U.S.A based materials, supplies and sources.
- F. **Height:** Maximum height of a Solar Array, other collection device, components or buildings of the Large Solar Energy System, excluding substation and electrical transmission equipment, shall not



exceed fifteen (15) feet (as measured from the natural grade at the base of improvements) at any time or location on the property. Substation and electrical transmission equipment shall not exceed one hundred (100) feet.

- G. **Lot Size:** Solar Energy Facilities (Utility-Scale or Commercial) shall only be located on parcels which are at least twenty (20) acres in size. Adjacent parcels under the same ownership or which are leased by the owner of the Solar Energy Facility may be considered in combination to satisfy the minimal parcel size. However, the parcels considered in combination shall not thereafter be separated throughout the life of the solar energy facility.
- H. **Setbacks:** A minimum setback distance of fifty (50) feet from all exterior property lines of the Large Solar Energy System and existing public roads and railroad rights-of-way shall be required for all buildings and Solar Arrays, provided that a setback of one hundred (100) feet shall be required adjacent to any residential structure.
- I. **Screening/Security:** A Large Solar Energy System shall be completely enclosed by perimeter security fencing to restrict unauthorized access. Such fencing shall be at least eight (8) feet in height with a one (1) foot extension arm consisting of a minimum of three strands of barbed-wire placed above the fencing and slanting outward as measured from the natural grade of the fencing perimeter. Electric fencing is not permitted. The perimeter of Large Solar Energy Systems shall also be screened and buffered by installed evergreen or native vegetative plantings whenever existing natural vegetation does not otherwise reasonably obscure the Large Solar Energy System from adjacent residential structures, subject to the following requirements:
  - 1. The evergreen or native vegetative (Cedar) buffer shall be composed of native or evergreen (Cedar) trees that at planting shall be a minimum of twenty (20) feet in height. The evergreen (Cedar) trees shall be spaced no more than fifteen (15) feet apart on center (from the central trunk of one plant to the central trunk of the next plant), native trees (Cedar) shall be placed no more than fifteen (15) feet apart on center. All unhealthy (sixty (60) percent dead or greater) and dead material shall be replaced by the Applicant within one (1) year, or the next appropriate planting period, whichever occurs first.
  - 2. All plant materials shall be installed between March 15<sup>th</sup> and November 15<sup>th</sup>. If the Applicant requests a Final Certificate of Occupancy from the Township and the Applicant is unable to plant during the installation period, the Applicant will provide the Township with a letter of credit, surety or corporate guarantee for an amount equal to one and one-half (1.5) times the cost of any planting deficiencies that the Township shall hold until the next planting season. After all plantings have occurred, the Township shall return the financial guarantee.
  - 3. Failure to install or continuously maintain the required vegetative buffer shall constitute a violation of this Ordinance and any Conditional Use may be subject to revocation.
- J. **Signage:** No advertising or non-project related graphics shall be on any part of the Solar Arrays or other components of the Large Solar Energy System. This exclusion does not apply to entrance gate signage or notifications containing points of contact or any and all other information that may be required by authorities having jurisdiction for electrical operations and the safety and welfare of the public.
- K. **Noise:** No component of any Large Solar Energy System shall emit noise exceeding fifty-five (55) dBA as measured at the exterior property boundary or the existing ROW line.



- L. **Lighting:** All lighting for parking lots, driveways, external illumination of buildings, or the illumination of signs shall be directed away from and be shielded from adjacent properties and shall be so arranged as to not adversely affect driver visibility on adjacent public roads.
- M. **Distribution, Transmission and Interconnection:** All collection lines and interconnections from the Solar Array(s) to any electrical substations shall be located and maintained underground inside the Large Solar Energy System, except in areas where technical or physical constraints make it preferable to install equipment above ground. This requirement excludes transmission equipment meant to connect the project substation to the local transmission system.
- N. **Abandonment and Decommissioning:** Following the operational life of the project, the Applicant shall perform decommissioning and removal of the Large Solar Energy System and all its components. The Applicant shall prepare a Decommissioning Plan and submit it to the Planning Commission for review and approval prior to issuance of the Conditional Use. Under this plan, all structures, concrete, piping, facilities, and other project related materials above grade and any structures up to forty-two (42) inches below-grade shall be removed offsite for disposal. Any Solar Array or combination of Photovoltaic Devices that is not operated for a continuous period of six (6) months shall be considered abandoned and shall be removed under the Decommissioning Plan. The ground must be restored to its original topography within three hundred sixty-five (365) days of abandonment or decommissioning. Restoration shall also include bringing soil to its pre-development composition to ensure agricultural use upon restoration. Soil tests shall be required as a part of the Decommissioning Plan both before development and prior to decommissioning. Soil shall be brought back to pre- development state within three hundred sixty-five (365) days of abandonment or decommissioning.
1. The applicant will obtain a surety bond for reclamation in an amount to be determined by Township Engineer as a condition of site plan approval.
  2. The Engineer will be able to review the size of the farm and the number of solar panels that will be installed. The amount of the surety bond would fluctuate depending on the size of the farm. Once the Engineer sets the surety bond amount, be sure to confirm that the applicant obtains it. This may be a condition of site plan approval.
  3. The surety bond is to remain in place for the length of the leases/contracts.
- O. **General Standards:** The Planning Commission shall not approve any Large Solar Energy System Conditional Use unless it finds that all of the general standards for Conditional Land Uses contained in this Ordinance are met.
- P. **Approval Time Limit and Extension:** Conditional Use and Site Plan approvals, under this Section, shall be valid for one (1) year beginning on the date of Township Board approval. Once commenced, should construction cease for a period of twelve (12) consecutive months, the Conditional Use and Site Plan approvals shall be considered null and void. If construction begins prior to the expiration date established by Township Board approval, the Conditional Use and Site Plan approvals shall remain in force as long as construction continues toward a reasonable date of completion. However, if requested by the Applicant prior to the expiration date established by Township Board approval, the Township Board may consider an additional one-year period upon showing of good cause for the extension.
- Q. **Conditions and Modifications:** Any conditions and modifications approved by the Planning Commission shall be recorded in the Planning Commissions' meeting minutes. The Planning Commission may, in addition to other reasonable conditions, require landscaping, walls, fences and other improvements that are reasonable in relation to and consistent with the nature of the applicable or adjacent zoning districts. After approval, at least two (2) copies of the final approved Site Plan shall be signed and dated by the Chairperson of the Planning Commission and authorized



representative of the Applicant. One copy shall be kept on file by the Township Clerk, and one copy shall be returned to the Applicant's authorized representative.

- R. **Inspection:** The Township shall have the right at any reasonable time, to provide a twenty-four (24) hour notice prior to the desired inspection to the Applicant to inspect the premises on which any Large Solar Energy System is located. The Township may hire one or more consultants, with approval from the Applicant (which shall not be unreasonably withheld), to assist with inspections at the Applicant's or project owner's expense. Inspections must be coordinated with, and escorted by, the Applicant's operations staff at the Large Solar Energy Facility to ensure compliance with the Occupational Safety and Health Administration (OSHA), NESC and all other applicable safety guidelines.
- S. **Maintenance and Repair:** Each Large Solar Energy System must be kept and maintained in good repair and condition at all times. If the Township Zoning Administrator determines that a Large Solar Energy System fails to meet the requirements of this Ordinance and the Conditional Use, or that it poses a safety hazard, the Zoning Administrator, or his or her designee, shall provide notice to the Applicant of the safety hazard. If, after a reasonable cure period (not to exceed 7 days), the safety hazards are not corrected, the Applicant is entitled to a hearing before the Township Board. If the Township Board determines that the safety hazard requires that the Large Solar Energy System must be shut down, Applicant shall immediately shut down the Large Solar Energy System and not operate, start or restart the Large Solar Energy System until the issues have been resolved. Applicant 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. Applicant shall keep all sites within the Large Solar Energy System neat, clean and free of refuse, waste or unsightly, hazardous or unsanitary conditions.
- T. **Roads:** Any material damages to a public road located within the Township resulting from the construction, maintenance or operation of a Large Solar Energy System shall be repaired at the Applicant's expense. In addition, the Applicant shall submit to the appropriate County agency a description of the routes to be used by construction and delivery vehicles; any road improvements that will be necessary to accommodate construction vehicles, equipment or other deliveries. The Applicant shall abide by all County requirements regarding the use and/or repair of County roads.
- U. **Continuing Security:** If any Large Solar Energy System is approved for construction under this Section, Applicant shall post decommissioning security prior to the start of construction (in a mutually agreed upon form) for an amount necessary to accomplish the work specified in the decommissioning plan as agreed upon by the Township and Applicant. The amount shall be reasonably sufficient to restore the property to its previous condition prior to construction and operation of the Large Solar Energy System. Such financial security shall be kept in full force and effect during the entire time that the Large Solar Energy System exists or is in place, and such financial security shall be irrevocable and non-cancelable.
  - 1. Continuing Obligations: Failure to keep any required financial security in full force and effect at all times while a Large Solar Energy System exists or is in place shall constitute a material and significant violation of the Conditional Use and this Ordinance, and will subject the Large Solar Energy System Applicant, owner and operator to all remedies available to the Township, including any enforcement action, civil action, request for injunctive relief, and revocation of the Conditional Use.
  - 2. These securities will be reviewed and updated every 5 years in order to ensure that adequate financial resources are available for a decommissioning process.
- V. **Performance Guarantee.** The Planning Commission may require the applicant to furnish the Township with a performance guarantee pursuant to Section 10.7 in an amount equal to the estimated costs



associated with dismantling the site and returning it to its original state in the event of abandonment. The amount shall be determined at the time of, and as a condition to, issuance of the Special Use Permit

- W. **Other Requirements:** Each Large Solar Energy System shall also comply with all applicable federal, state and county requirements, in addition to other applicable Township Ordinances.

#### **Section 2: Severability**

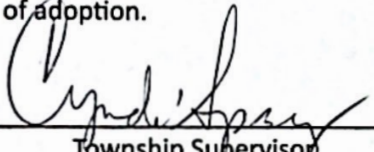
If any clause, sentence, paragraph, or part of this Ordinance shall for any reason be finally adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, or invalidate the remainder of this Ordinance but shall be confined in its operation to the clause, sentence, paragraph, or part thereof directly involved in the controversy in which such judgment is rendered.

#### **Section 3: Saving Clause**

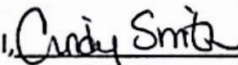
The Caledonia Township Zoning Ordinance, except as herein or heretofore amended, shall remain in full force and effect. The amendments provided herein shall not abrogate or affect any offense or act committed or done, or any penalty or forfeiture incurred, or any pending fee, assessments, litigation, or prosecution of any right established, occurring prior to the effective date hereof.

#### **Section 4: Effective Date**

The ordinance changes shall take effect upon the expiration of seven days after the publication of the notice of adoption.

  
\_\_\_\_\_  
Township Supervisor

  
\_\_\_\_\_  
Township Clerk

I,  Clerk for Caledonia Township, hereby certify that the foregoing is a true and correct copy of Ordinance No. 2 of 2021 of Caledonia Township, adopted by at a meeting of the Township Board of Trustees held on 12-8-21.

A copy of the complete ordinance text may be inspected or purchased at the Caledonia Township Hall, at 6461 Gillard Rd, Spruce, Michigan 48762.

Adopted:  
12-8-21

Published:  
12-15-21

Effective:  
12-22-21, subject to PA 110 of 2006 as amended.