

ORDINANCE NO. 2019-1

PURPOSE: An Ordinance to amend the Arbela Township Zoning Ordinance

WHEREAS, this Board desired to enact the following ordinance regulating the operation or maintenance of solar energy facilities in Arbela Township,

NOW, THEREFORE, BE IT ORDAINED by the Arbela Township Board, as follows:

SECTION 1: TITLE

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

SECTION 2. PURPOSES AND OBJECTIVES

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

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

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commercial and residential lands. This ordinance is not intended to abridge safety, health or environmental requirements contained in other applicable codes, standards or ordinances. The provisions of this ordinance shall not be deemed to nullify any provisions of local, State or Federal Law.

SECTION 3. 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" is mandatory and not discretionary.

Abandonment: shall mean to give up, discontinue, withdraw from any solar energy facility that ceases to produce energy on a continuous basis for 12 months will be considered abandoned.

Ancillary Solar Equipment: shall mean any accessory part or device of a solar energy system that does not require direct access to sunlight, such as batteries, electric meters, converters or water heater tanks.

Building: shall mean 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.

Decommissioning plan: shall mean a document that details the planned shut down or removal of a solar energy facility from operation or usage.

Fence: shall mean a continuous barrier extending from the surface of the ground to a uniform height of not less than six (6) feet from the ground at

any given point, constructed of dirt, wood, stone, steel or other metal, or any substance of a similar nature and strength.

Gate: shall mean a door or other device attached to a fence which, when opened, provides a means of ingress and egress of persons and things for which it was intended, and which, when closed, forms a continuous barrier as a part of the fence to which it is attached.

Improved Area: shall mean any area containing solar panels, electrical inverters, storage buildings and access roads.

Opaque Fence: shall mean a continuous opaque, unperforated barrier extending from the surface of the ground to a uniform height of not less than six (6) feet from the ground at any given point, constructed of dirt, wood, stone, steel or other metal, or any substance of a similar nature and strength which will hide the solar energy facility.

Public Road: shall mean any road or highway which is now or hereafter designated and maintained by the Tuscola County Road Commission as part of the County road system, whether primary or secondary, hard-surfaced or other dependable road which provide access to residential areas. Setbacks for improved areas shall be measured from the road right of way.

Residence: shall mean a building used as a dwelling for one or more families or persons.

Residential Area: shall mean an area zoned for residential use.

Solar Collector Surface: shall refer to any part of a solar energy system that absorbs solar energy for use in the system's transformation process. The collector surface does not include frames, supports and mounting hardware.

Solar Energy: shall mean radiant energy received from the sun that can be collected in the form of heat or light by a solar energy system

Solar Energy Facility (SEF): shall mean an energy facility, an area of land, or a structural rooftop principally used to convert solar energy to electricity, which includes, but is not limited to, the use of one or more solar energy systems. This definition shall only include those facilities that sell electricity to be used off site.

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

- A. **Personal-Scale SES** shall mean a solar energy system that is an accessory to the principal use on the site. The total surface area of all Solar Collector Surfaces within a Personal-Scale SES shall NOT exceed 1,500 square feet. The sale and distribution of excess available energy, if permitted, to an authorized public utility for distribution shall be incidental to this type of system and NOT its primary purpose. Sale of excess energy to anything other than an authorized public utility shall be prohibited.
- B. **Utility-Scale SES** shall mean a solar energy system that meets one or more of the following:
1. Is primarily used for generating electricity for sale and distribution to an authorized public utility.
 2. The total surface area of all Solar Collector Surfaces exceeds 1,500 square feet.

3. Is not an accessory use or structure.
- C. **Building-Mounted SES**: shall mean a solar energy system affixed to a permanent principal or accessory building (i.e., roof or wall).
- D. **Ground-Mounted SES**: shall mean a freestanding solar energy system that is NOT attached to and is separate from any building on the parcel of land on which the solar energy system is located.

SECTION 4. STANDARDS FOR PERSONAL-SCALE SES

Personal-Scale SES shall be permitted as an accessory use/structure in all zoning districts, subject to the following standards:

A. **Ground-Mounted SES**

Ground-mounted, personal-scale SES shall be subject to the following additional standards:

1. **Setbacks**: In all Zoning Districts, ground-mounted solar energy systems shall be located only in the rear or side yard and shall correspond with the setbacks for the district in which it shall be located.
2. **Height**: Ground-mounted solar energy systems shall NOT exceed sixteen (16) feet in height, measured from the ground at the base of such equipment to the highest point of the system.
3. **Attachment**: Solar energy systems shall be permanently and safely attached to the ground.
4. **Visual Impact**: The solar energy system shall not have a significant adverse visual impact on the natural features or neighborhood character of the surrounding area and shall be located to minimize glare on adjacent properties and roadways.

5. **Compliance with Additional Codes:** Solar energy systems and the installation and use thereof, shall comply with the County/State construction code, the electrical code and other applicable County and State codes. Installation of a solar energy system shall not commence until all necessary permits have been issued.

- B. **Ancillary Solar Equipment:** Where feasible, ancillary solar equipment shall be located inside of a building or be screened from public view. All ancillary solar equipment such as, but not limited to, water tanks, supports, batteries and plumbing shall be screened to the maximum extent possible without compromising the effectiveness of the solar collectors. When solar storage batteries are included as part of the solar collector system, they must be placed in a secure container or enclosure meeting the requirements of the State, County and Township Building Code and when no longer in use shall be disposed of in accordance with applicable laws and regulations.

- C. **Application Requirements**

An application shall include the following:

1. Photographs of the property's existing conditions.

2. Renderings or catalog cuts of the proposed solar energy system.

3. Plot/Sketch plan to indicate where the solar energy system is to be installed on the property (or if building mounted, the system's location on the permanent building), including property setbacks and the total Solar Collector Surface area.

4. Elevations showing the height of the solar energy system.

- a.) For ground-mounted solar systems, the height of the system above ground.
 - b.) For pitched roof-mounted solar systems, the elevation must show the highest finished height of the system and the height of the finished roof surface on which it is mounted.
 - c.) For flat roof-mounted solar energy systems, the elevations shall show the highest finished height of the system and the highest point of the roof, including any parapets on the building.
5. Description of the screening to be provided for ground or building-mounted solar energy equipment.
 6. Proof of notification and date of delivery of airport notification of solar systems location.
 7. Other certifications as may be required.

D. Exclusions from Zoning Compliance Permit for Personal-Scale SES

The following situations do not require a Land Use Permit but shall still comply with all other standards of this Ordinance:

1. The total installation shall be only one (1) building-mounted solar energy system with a total solar collector surface area of less than eight (8) square feet.
2. The total installation shall be only one (1) ground-mounted solar energy system with a height of less than six (6) feet and a solar collector surface of less than eight (8) square feet.

3. Repair and replacement of existing solar energy equipment, provided there is no expansion of the size or coverage area of the solar energy system.

SECTION 5. STANDARDS FOR UTILITY-SCALE SES

Utility-scale Solar Energy Systems shall be permitted under use in Agricultural, Forestry-Conservation and Industrial districts only, subject to approval of the Zoning Administrator.

A. Standards for all Utility-scale SES

1. Setbacks

- a.) Front Yard: Utility-scale solar energy systems shall be set back at least 70' from the road right-of-way line subjected to approval of the Zoning Administrator.
- b.) Each side yard and rear yard setback shall correspond with the requirements of the zoning district in which the system is located.

2. **Height:** Utility-scale ground-mounted solar energy systems shall conform to the maximum height standards of the zoning district in which it is located.

3. **Minimum Lot Area:** Minimum lot area for a utility-scale solar energy system shall be five (5) acres.

4. **Lighting:** On-site lighting shall meet the performance standards of Arbelá Township Zoning Ordinance. Lighting shall be limited to that required for safety and operational purposes and shall be directed downward and shielded from abutting properties.

5. **Signage:** Signs shall comply with the requirements described in the Arbela Township Zoning Ordinance. Further, utility-scale solar energy system installations shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the solar energy system. An information sign shall be posted and maintained at the entrance(s) which lists the name and phone number of the operator.

Warning Signage: Signs warning of the high voltage associated with the solar farm shall be posted at every entrance to the facility, at the base of all pad mounted transformers and substations. A sign that provides emergency contact information, such as phone number, shall be posted near the entrance and the operations and maintenance building.

6. **Screening:** When a utility-scale solar energy system is adjacent to a residentially-zoned or used lot, front, side and rear yard screening may be required as determined by the Planning Commission to address specific site needs at the time of site plan review. Solar panels shall be placed such that concentrated solar glare shall not be directed onto nearby properties or roadways. When deemed appropriate, the Planning Commission may require a report from a registered civil engineer or other professional to address this issue.

7. **Landscaping:**

a.) **Buffer:** The design of solar energy facilities buffers shall use materials, colors, textures, screening and landscaping, that will blend the facility into the natural setting and existing environment.

All solar energy facilities shall have a minimum landscape buffer of 25 feet. The buffer shall contain evergreen trees or bushes no more than 8 feet apart and at least 4 foot tall at time of planting. The buffer shall obtain a height of 10 feet within 3

growing seasons. The trees or bushes may be trimmed but no lower than a height of 10 feet. A buffer area will not be required between a solar energy facility and an industrial, agriculture, timber or commercial use. A planted buffer will not be required if an opaque fence is installed.

b.) **Maintenance:** Each owner, operator or maintainer of a solar energy facility to which this Ordinance applies and who chooses to use vegetation as defined about with wire fence, shall utilize good husbandry techniques with respect to said vegetation, including but not limited to, property pruning, proper fertilizer, and proper mulching, so the vegetation will reach maturity as soon as practical and will have maximum density in foliage. Dead or diseased vegetation shall be removed and must be replanted at the next appropriate planting time.

8. **Site Clearing:** Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of the installation. No land assets, i.e., top soil, lumber, etc. may be removed from the premises without the written approval of the land owner. Copy must be on file with the Arbela Township Clerk.

B. **Additional Standards for all Building-Mounted SES**

Utility-Scale building-mounted SES shall be subject to the following additional standards:

1. **Height:** Solar energy systems that are mounted on the roof of a building shall not project more than five (5) feet above the highest point of the roof and, in any circumstances, shall NOT exceed the maximum building height limitation for the zoning district in which it is located, and shall NOT project beyond the eaves of the roof.

2. **Weight:** Solar energy systems mounted on the roof of a building shall be only of such weight as can safely be supported by the roof. Proof thereof, in the form of certification by a professional engineer or other qualified person, shall be submitted to the Township Zoning Administrator prior to installation.
3. **Attachment:** Solar energy systems that are roof-mounted, wall-mounted or are otherwise attached to a building or structure shall be permanently and safely attached to the building or structure. Proof of the safety and reliability of the means of such attachment shall be submitted to the Zoning Administrator prior to installation.
4. **Wall-Mounted SES:** Solar energy systems that are wall-mounted shall NOT exceed the height of the building wall to which they are attached.
5. **Visual Impact:** The solar energy system shall not have a significant adverse visual impact on the natural features or neighborhood character of the surrounding area and shall be located to minimize glare on adjacent properties and roadways. Solar energy systems that are visible from the street or road must be either composed of building-integrated components (such as solar shingles) that are not readily evident, or be designed and mounted to match the shape, proportions, and slope of the roof.
6. **Compliance with Additional Codes:** Solar energy systems, and the installation and use thereof, shall comply with the County/State construction code, the electrical code and other applicable Township and State codes. Installation of a solar energy system shall NOT commence until all necessary permits have been issued.

SECTION 6: ABANDONMENT

Abandonment:

A SEF that ceases to produce energy on a continuous basis for 12 months will be considered abandoned unless the current responsible party (or parties) with ownership interest in the SEF provides substantial evidence (updated every 6 months after 12 months of no energy production) to the Planning Commission of the intent to maintain and reinstate the operation of that facility.

Upon determination of abandonment, the Zoning Administrator shall notify the party (or parties) responsible of such determination and the responsible party or parties must respond within 30 days.

1. If the responsible party (or parties) fails to comply, the Arbelá Township Supervisor or her/his designee may remove the SEF, sell any removable materials, make use of the funds provided by the financial surety agreement, initiate judicial proceedings or take any other steps legally authorized against the responsible parties to recover the costs required to remove the SEF and restore the site to a non-hazardous, pre-development condition.

SECTION 7: ANCILLARY SOLAR EQUIPMENT

Where feasible, ancillary solar equipment shall be located inside the building or be screened from public view. All ancillary solar equipment such as, but not limited to, water tanks, supports, batteries and plumbing shall be screened to the maximum extent possible without compromising the effectiveness of the solar collectors. When solar storage batteries are included as part of the solar collector system, they must be placed in a secure container or enclosure meeting the requirements of the State Building Code and when no longer in use shall be disposed of in accordance with applicable laws and regulations.

SECTION 8: APPLICATION REQUIREMENTS

The following items must accompany any request for a Special Land Use Permit

- A. Special Land Use Permit Application and appropriate payment must accompany site plan.**

Payment shall cover application costs, site plan review, legal advice, if needed and public hearing expenses.

B. Site Plan

1. 10 copies of a site plan which conform to the standards of this Ordinance to the Arbela Township Planning Commission and include:
 - a.) Setbacks, designated panel area, location of property lines, buildings and road right of ways,
 - b.) Existing structures on subject property.
 - c.) All existing and proposed underground and above ground utilities,
 - d.) All rights of way, wetlands, wooded areas and public conservation lands,
 - e.) Ingress and egress from the site as proposed during construction and thereafter, indicating:
 - i. proposed road surface and cover,
 - ii. dust control,
 - iii. width and length of access route,

- iv. road maintenance progress or schedule for proposed land.
 2. The Planning Commission /Zoning Administrator shall review the site plan to insure conformity with the requirements of this Ordinance.
 3. The Zoning Board of Appeals may grant a variance to these requirements based upon good cause shown. Applications for such variance shall be made to the Arbelá Township Zoning Board of Appeals Secretary.
 4. Appeals of a Planning Commission decision shall be to the Arbelá Township Zoning Board of Appeals.
- C. After initial departmental site plan review, ten (10) copies of the site plan in 18" x 24" format must be provided for the Planning Commission decision meeting along with the following:
 1. **Product Description:** A description of the proposed technology to include type of solar panel and system, fixed mounted verses solar tracking, number and size of each panel, angles of orientation, etc.
 2. **Owner Agreement:** An affidavit or evidence of an agreement between the lot owner and the facility's owner or operator confirming the owner or operator has permission of the property owner to apply for the necessary permits for construction and operation of the solar energy facility.
 3. **Proof Of Agreement or Application To Purchase Electricity:** A copy of the application with the utility company that will be purchasing electricity from the proposed site.

4. **Documents to Provide Proof of Easement with Adjacent Property Owners:** Evidence of covenants, easements or similar documentation with abutting property owners to allow the crossing of their property with any part of the solar energy system, to include but not limited to output lines.
5. **Proof of appropriate required storage battery storage:** If the solar energy facility consists of batteries or storage of batteries, adequate design must be provided to ensure all county, state and federal requirements regulating battery storage have been met.
6. **Drainage Disposal Plan:** Plan for drainage disposal and erosion control approved by Tuscola County Drain Department.
7. **Airport Notification Proof:** Proof of delivery of notification and date of delivery to all affected airports, of location and product glare test results or proof of non-applicability.
8. **Airport Location Map:** Proof of delivery of notification and date of delivery to all affected airports, of location and product glare test results or proof of non applicability.
9. **Environmental Impact Documentation:** The applicant shall have a third party, qualified professional conduct an analysis to identify and assess any potential impacts on the natural environment including wetlands and other fragile ecosystems, historical or cultural sites and antiquities, and adjacent agricultural uses such as rotating crops. The applicant shall take appropriate measures to minimize, eliminate or mitigate adverse impacts identified in the analysis. The applicant shall identify and evaluate the significance of any effects or concerns that will remain after mitigation efforts. In addition, a water usage or impact study shall be completed that will indicate any

impact that the solar farm will have on township water resources.

10. Avian And Wildlife Impact Documentation: The applicant shall have a third party, qualified professional conduct an analysis to identify and assess any potential impacts on wildlife and endangered species. The applicant shall take the appropriate measures to minimize, eliminate or mitigate adverse impacts identified in the analysis. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts.

11. Operation and Maintenance Plan: A plan for the operation and maintenance of the utility-scale system, which include measures for maintaining safe access to the installation, storm water controls, as well as general procedures of operational maintenance of the installation.

12. Emergency Plan: The owner/operator of the solar energy system shall cooperate with local emergency services in developing an emergency response plan to be submitted with the application. All means of shutting down the solar energy system shall be clearly marked. The owner/operator shall identify a responsible person for public inquires throughout the life of the installation. An information sign shall be posted and maintained at the entrance(s) which lists the name and phone number of the operator.

13. Financial Surety: The applicant for a utility-scale solar energy system shall provide a form of surety, either through escrow account, bond or otherwise, to cover the cost of removal in the event Arbela Township must remove the installation, in an amount and form determined to be reasonable by the Planning

Commission, but in no event to exceed more than 125 percent of the cost of removal. A cost estimate for the decommissioning of the facility shall be prepared by a professional engineer or contractor who has expertise in the removal of the solar farm. The decommissioning cost estimate shall explicitly detail the cost before considering any projected salvage value of the solar farm. The amount shall include a mechanism for calculating and providing increased removal costs due to inflation. The decommissioning cost shall be made to Arbela Township, by cash, surety bond or irrevocable letter of credit before any construction commences.

14. **Water Acquisition, Reclamation and Disposal Plan:**

15. **Complete Decommissioning Plan:** The decommissioning plan shall have the following information provided for removal within 9 months:

- a.) All solar collectors and components, above-ground improvements and outside storage.
- b.) Foundations, pads and underground electrical wires.
- c.) Restore the site to original condition.
- d.) Hazardous material from the property and dispose of in accordance with Federal and State Law.
- e.) A restoration plan for the site

D. **Other Required Documents:** Any other relevant studies, reports, certificates and approval as may be reasonably required by Arbela Township.

Prior to final inspection, proof that a permit issued by the State in accordance with applicable provisions of the General Statutes has been issued.

No new solar energy facility shall be constructed in Arbela Township until the site plan has been approved by the Arbela Township Planning Commission.

SECTION 9: LIABILITY INSURANCE

The owner or operator of the solar farm shall maintain a current general liability policy covering bodily injury and property damage and name Arbela Township as an additional insured with limits of at least two million dollars (\$2,000,000) per occurrence and five million dollars (\$5,000,000) in the aggregate with a deductible of no more than five thousand (\$5,000). Proof of current policy required annually.

SECTION 10: ENFORCEMENT AND PENALTIES

Any person, firm or corporation violating any of the provisions of this Ordinance shall be subject to the following penalties:

- A. Violations of this Ordinance shall be a misdemeanor, punishable upon conviction by a fine not to exceed \$500.00 or by imprisonment in the county jail for a period not to exceed 90 days, or by both fine and imprisonment. Each day the violation exists shall constitute a separate offense. In addition, to the forgoing penalties, anyone convicted of violating this Ordinance under this provision shall be assessed the costs of prosecuting, including attorney fees, incurred by the Township.
- B. This Ordinance shall be enforced by such person or persons as may be designated by the Arbela Township Board of Trustees.
- C. The Township shall have the right to petition the Tuscola County Circuit Court for an injunction prohibiting the continuing violation of this Ordinance. Anyone found to be in violation of this Ordinance and

enjoined by said Court will be assessed the cost and attorney fees incurred by the Township in seeking said injunction.

SECTION 11: 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 12. EFFECTIVE DATE

The Ordinance changes shall take effect seven (7) days after the publication of the notice of adoption unless petition procedures are initiated under MCL 125.3402. If petition procedures are initiated, the Ordinance shall take effect in accordance with MCL 125.3402.

This Ordinance is hereby declared to have been adopted by the Township Board of the Township of Arbela, County of Tuscola, State of Michigan at a regular meeting thereof held on the _____ day of _____ 2019 and ordered to be given publication in the manner prescribed by law.

We, Joseph B. White, Supervisor of the Township of Arbela, and Mary C. Warren, Clerk of the Township of Arbela, do hereby certify that the foregoing is a true copy of an Ordinance adopted by the Township Board at a meeting held on the _____ day of _____, 2019.

Arbela Township - Supervisor

Arbela Township - Clerk

	<u>Yes</u>	<u>No</u>
_____ Supervisor	_____	_____
_____ Clerk	_____	_____
_____ Treasurer	_____	_____
_____ Trustee	_____	_____
_____ Trustee	_____	_____

I, Mary C. Warren, Clerk of the Township of Arbela do hereby certify that the above names of the members of the Township Board of the Township of Arbela voting on the above Ordinance and how said members voted.

Arbela Township Clerk

I, Mary C. Warren, Clerk of the Township of Arbela, do hereby certify that a summary of the above Ordinance was published by insertion in Caro Publishing Inv., a newspaper circulating within the Township of Arbela, on the _____ day of _____, 2019.

Arbela Township Clerk