

BROCKWAY TOWNSHIP

**ORDINANCE TO AMEND ZONING ORDINANCE
REGARDING SOLAR ENERGY SYSTEMS**

ORDINANCE NO. 2024-12

BROCKWAY TOWNSHIP ORDAINS:

Section 1. Purpose.

Brockway Township (the "Township") adopts the following revisions to the Township's Zoning Ordinance for the health, safety and welfare of Township residents.

Section 2. Amendment of Zoning Ordinance.

The Zoning Ordinance is hereby amended to add a new Section 14.52, which reads as follows:

SECTION 14.52: SOLAR ENERGY SYSTEMS (SES)

1. Purpose and Intent

This Zoning Ordinance amendment is intended to provide for the development, installation and construction of photovoltaic solar energy facilities subject to reasonable conditions that will protect the public health, safety and welfare. These regulations establish minimum requirements and standards for the placement, construction, and modification of photovoltaic solar energy facilities. More specifically, this Ordinance is intended to:

- a. Provide site plan and special land use review and approval requirements that will promote the use of solar energy as a clean alternative energy source while preserving the quality and aesthetics of the environment within Brockway Township.
- b. Protect Township areas from any potentially adverse effects of small-scale or large-scale solar energy facilities and related structures or devices so that the public health, safety, and welfare will not be jeopardized.
- c. Establish standards and procedures by which the siting, design, engineering, installation, operation, and maintenance of solar energy facilities shall be governed.
- d. Provide for the removal of abandoned or noncompliant solar energy facilities and related structures or devices.

2. Definitions

The following terms and phrases in Section 14.52 shall have the meanings set forth below:

SES: Solar Energy System.

LSES: Large-Scale Solar Energy System (also called Utility-Scale Solar Energy System).

SSES: Small-Scale Solar Energy System.

ABANDONMENT: Any solar energy system that ceases to produce energy at a level equal to or less than fifty percent (50%) of its nameplate capacity on a continuous basis for twelve (12) months will be considered abandoned, unless the operator can demonstrate to the

Township Board that a reasonable effort is being made to restore energy production within a specific period of time. This includes a Solar Energy System that was never operational if construction has been halted for a period of twelve (12) months.

AGRICULTURE DRAIN TILE SYSTEM: A type of drainage system that removes excess water from soil below its surface using underground drainage tiles.

ANSI: American National Standards Institute.

BIVP: Building-integrated photovoltaic panel.

COMPLAINT VENDOR: A 3rd party website/web manager of a complaint process.

dB(A): The sound pressure level in decibels referred to in the “A” weighted scale. dB(A) levels are weighted according to weighting curves to approximate the way the human ear hears.

DECIBEL: A unit of measure used to express the magnitude of sound pressure and sound intensity.

DECOMMISSION: To remove or retire from active service.

DECOMMISSIONING PLAN: A document that details the planned shut down or removal of a solar energy system from operation or usage.

FENCE: A continuous barrier enclosing a field or other space, usually made of vertical posts connected with horizontal sections of sturdy material, such as steel or aluminum, to prevent entrance and to mark a boundary.

FERC: The Federal Energy Regulatory Commission.

GLARE: Visual conditions in which there is excessive contrast or an inappropriate distribution of light sources that disturbs the observer or limits the ability to distinguish details and objects.

GROUND MOUNTED SOLAR ENERGY SYSTEM: A solar energy system that is mounted on support posts, like a rack or posts, that are attached to the ground.

GRID: The infrastructure of power lines, transformers and substations that deliver electric power to buildings. The utility grid is owned and managed by electric utility companies.

ISO: International Organization for Standardization.

Lmax: The maximum dB(A) sound level per noise event. All noise measurements shall use Lmax dB(A) method.

LARGE-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 and that has a nameplate capacity of 50 megawatts or more.

NAMEPLATE CAPACITY: The designed full-load sustained generating output of a solar energy facility.

NON-PARTICIPATING PARCEL: A parcel that is adjacent to a solar energy facility and that is not a participating parcel.

PUBLIC ACT 116: The Michigan Farmland and Open Space Preservation Act is a law that works to preserve farmland by offering incentives to farmers who are willing to participate (see Part 361 of the Natural Resources and Environmental Protection Act, Michigan Public Act 451 of 1994, as amended).

PARTICIPATING PARCEL: A parcel of real property that either is owned by an applicant or that is the subject of an agreement that provides for the payment by an applicant to a landowner of monetary compensation related to a solar energy facility regardless of whether any part of that solar energy facility is constructed on the parcel.

PHOTOVOLTAIC (PV): A method of generating electrical power by converting solar radiation (sunlight) into direct current electricity using semiconductors.

PUBLIC ROAD: Any road or highway which is now or hereafter designated and maintained by the St. Clair County Road Commission as part of the County Road System, or by the Michigan Department of Transportation as part of the State highway system.

RESIDENCE: A building used as a dwelling for one or more families or persons.

RESIDENTIAL AREA: An area zoned or used for residential purposes.

ROOF MOUNTED SOLAR ENERGY SYSTEM: A solar energy system mounted on racking that is attached to or ballasted on the roof of a building or structure.

SETBACK: The horizontal distance between any lot line or road right-of-way line and the nearest part of a structure on a lot. The minimum required setback is the minimum distance between a front, side, or rear lot line or road right-of-way line and the nearest part of a solar energy facility to conform to the required setback provisions of this Ordinance.

SLUP: Special Land Use Permit

SMALL-SCALE 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, and that has a nameplate capacity of less than 50 megawatts.

SOLAR CANOPIES: Solar energy systems that are elevated above the ground such that the land beneath the panel can be used for a secondary purpose. For example, solar canopies are

often installed above parking lots (also referred to as solar carports) or in yards to provide shade. Solar canopies above parking lots can also include electric car charging stations.

SOLAR COLLECTOR SURFACE: Any part of a solar energy system that absorbs solar energy for conversion into electricity. The collector surface does not include frames, supports, and mounting hardware.

SOLAR ENERGY: Radiant energy emitted by the sun.

SOLAR FARM: A large-scale solar energy facility that converts sunlight into electricity, whether by photovoltaics or any other various solar technologies, for the primary purpose of wholesale or retail sales of generated electricity off-site. Large-scale solar farms do not include small-scale solar energy facilities installed at individual residential or commercial locations (e.g. roof, wall, or ground-mounted panels) that are used exclusively for private purposes and not for commercial sale of energy, except for the sale of surplus electrical energy back to the electrical grid.

SOLAR GLARE: The effect produced by light reflecting from a solar panel with an intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.

SOLAR ENERGY SYSTEM (SES): An energy system that converts solar energy into electricity. Solar energy system or facility includes, but is not limited to, the following equipment and facilities to be constructed by an electric provider or independent power producer: photovoltaic solar panels; solar inverters; access roads; distribution, collection, and feeder lines; wires and cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations; interconnection or switching facilities; circuit breakers and transformers; energy storage facilities; overhead and underground control; communications and radio relay systems and telecommunications equipment; utility lines and installations; generation tie lines; solar monitoring stations; and accessory equipment and structures.

SOLAR GLARE HAZARD ANALYSIS TOOL (SGHAT): A tool developed by the Sandia National Laboratories. It is used to measure the potential unwanted visual impacts from solar glare on pilots, workers, motorists, and others near a solar energy system.

STRAY VOLTAGE: Stray voltage refers to small voltage differences that can exist between two surfaces. On the farm these can be surfaces that are accessible to animals (stanchion, waterer, floor, etc.). When an animal touches both surfaces simultaneously, a small electric current will flow through its body. If the current is high enough, it can be felt by the animal and may cause behavioral changes.

USDA: The United States Department of Agriculture.

3. General Guidelines

- a. The Zoning Ordinance is intended to preserve and protect the Township's important and sensitive environmental and ecological assets and areas, open space, viewsheds, aesthetics, wetlands, and other ecological and environmentally sensitive areas.

- b. The Township desires to preserve the physical integrity of land near residential areas. The general welfare, health, and safety of the citizens of the Township will be promoted by the enactment of this ordinance.
- c. This ordinance is not intended to abridge health, safety, or environmental requirements contained in other applicable codes or ordinances. The provisions of this ordinance shall not be deemed to nullify any provisions of local, county, state, or federal law.
- d. The Township may revoke any approvals for, and require the removal of, any solar energy system that does not comply with this Ordinance.

4. Small-Scale Solar Energy Systems

a. General Guidelines.

- (1) **Purpose.** A small-scale solar energy facility shall provide power only for the principal use or accessory use for the property on which the small-scale solar scale facility is located and shall not be used for generation of electricity for sale to other users, except for sale of ancillary excess electricity generated to the local utility company.
- (2) **Zoning Districts.** Installation of a small-scale solar energy system is permitted in all zoning districts as an accessory to a principal use.
- (3) **Design Requirements.** Design shall conform to applicable industry standards and manufacturer's specifications.
- (4) **Violations.** If a small-scale solar energy system fails to comply with this Ordinance, the Township, in addition to any other remedy permitted by law, may revoke the zoning permit and site plan approval 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.
- (5) **Batteries.** Batteries are permitted for small-scale solar energy facilities. The quantity and type of proposed batteries shall be included in the site plan details. Batteries shall be placed in a secure building or enclosure meeting the requirements of the State Building Code. When no longer in use, batteries shall be disposed of in accordance with all applicable laws and regulations. Removal of any batteries from an abandoned system shall be done at the owner's or operator's expense.

b. Roof or Building Mounted Small-Scale Solar Energy Systems.

- (1) **Location.** A roof or building mounted solar energy installation may be located on a principal building, accessory building, or parking lot canopy but may not extend more than two (2) feet above the surface of the roof, nor exceed the maximum height of the structure for the building type specified in the zoning district.
- (2) **Proximity to Roof Edge.** No part of the installed solar equipment shall extend beyond the edge of the roof and no part of a solar energy system mounted on a roof shall be installed closer than three (3) feet from the edges of the roof, the peak, or eave or valley to maintain pathways of accessibility.

- (3) **Weight.** Solar equipment mounted on the roof of a structure shall be only of such weight as can safely be supported by the roof structure and shall comply with the manufacturer's installation guidelines.
- (4) **Attachment.** Solar energy equipment that is roof mounted or building mounted shall be securely and safely attached to the building or structure.
- (5) **Building Permit.** A building permit is required prior to the installation of a roof mounted or building mounted small-scale solar energy system.

c. **Ground Mounted Small-Scale Solar Energy Systems.**

- (1) **Site Plan.** Before installation of a ground mounted small-scale solar energy system, the property owner must submit a site plan to the Township Clerk to initiate Planning Commission review, pursuant to Section 18.06. The site plan must be drawn to scale and shall include setbacks, panel size and height, and the locations of property lines, buildings, fences, greenbelts, and road rights-of-ways.
- (2) **Maximum Height.** A ground mounted small-scale solar energy system shall not exceed twenty (20) feet above the grade level when oriented at maximum tilt.
- (3) **Location.** A ground mounted small-scale solar energy system shall be located to the rear of the principal building and shall comply with the side and rear yard setback requirements applicable in the underlying zoning district.
- (4) **Underground Transmission.** All electric transmission lines, wires, or conduits from a ground mounted small-scale solar energy system to any building or other structure must be located underground.
- (5) **Battery Containment.** If batteries are used as part of the solar energy system, they must be placed in a secured container or enclosure.
- (6) **Screening.** Evergreen screening is required around any ground mounted small-scale solar energy system and any ancillary equipment to obscure it from view from the road to the greatest extent possible. The screening shall consist of a double row of evergreen trees, which shall be a minimum of eight (8) feet in height at the time of planting, and which shall be planted no farther than fifteen (15) feet apart. In lieu of evergreen screening, a decorative fence that is at least fifty percent (50%) opaque may be used, subject to the requirements in Section 16.12, if approved by the Planning Commission
- (7) **Lot Coverage.** The area of the solar array at minimum tilt shall not exceed fifty percent (50%) of the gross square footage of the primary building on the property.
- (8) **Reflectance.** The exterior surfaces of a ground mounted small-scale solar energy system shall be substantially non-reflective of light.
- (9) **Abandonment.** If a ground mounted small-scale solar energy system is abandoned (as defined herein), the property owner shall immediately notify the Township and remove the system within three (3) months after the date of abandonment.
- (10) **Building Permit.** A building permit is required prior to the installation of a ground mounted small-scale solar energy system.

5. Large-Scale Solar Energy Systems.

a. **General Requirements.** Large-scale solar energy facilities are permitted in the AG, Agricultural Districts in Section 25 on the east side M-19 (Emmett Road) between Wilkes Road and Norman Road and Section 36 on the east side of M-19 (Emmett Road) between Norman Road and M-136 (Metcalf Road), subject to special land use and site plan approval, pursuant to the requirements and conditions of this Zoning Ordinance. Large-scale solar energy facilities are designed and built exclusively to provide electricity to the electric utility's power grid and are not accessory to any other use. A large-scale solar energy system is a principal use of property and may occupy the same property as another principal use.

b. Application Requirements.

- (1) **Utility Company Authorization.** Written authorization from the utility company acknowledging and approving the connection to the utility grid shall be provided to the Township. A copy of the power purchase agreement with the utility company that will be purchasing the electricity shall be provided.
- (2) **Design Compliance.** The applicant shall submit certificates of design compliance obtained by the equipment manufacturer from one or more certifying organizations, such as ISO or ANSI.
- (3) **Applicant Identification.** The application shall include the names, addresses, and contact information (email addresses and telephone numbers) of the applicant and owner(s) (if different from the applicant), and date of submittal.
- (4) **Application Fee and Escrow.** The applicant shall remit an application fee and an escrow deposit. The amount shall be as specified in the fee schedule adopted by the Board of Trustees. All review costs shall be borne by the applicant and deducted from the escrow.
- (5) **Escrow Account.** An escrow account shall be set up when the applicant applies for a special land use permit for a large-scale solar energy installation. The escrow amount shall be sufficient to cover all costs associated with the SLUP application review and approval process, which costs can include, but are not limited to, fees of the township attorney, township planner, and township engineer, and other experts contracted by the Township, as well as any reports or studies which the Township anticipates will be required during the review process. Such escrow amount shall include regularly established fees.

At any point during the zoning review process, the Township may require that the applicant place additional monies into the escrow account, in the event that the amount of funds in the escrow account are insufficient to cover the review costs incurred by the Township. If additional funds are required by the Township to be placed in escrow and the applicant refuses to do so the zoning review and approval process shall cease until and unless the applicant makes the required escrow deposit.

Funds remaining in the escrow account upon completion of the review process shall be returned to the applicant. An itemized billing of all expenses shall be provided to the applicant and Planning Commission upon request.

- (6) **Project Description.** The application shall provide a general description of the project, which shall include at minimum: size in acres, nameplate capacity, safety concerns, noise characteristics, manufacturers of all equipment (including names, addresses, and model numbers), development timeframe and phases, project life, likely market for generated electricity, and possible future expansion. Supporting documentation necessary to address review requirements shall be provided.
- (7) **Property Owner Permission, Easement, Lease, or other Contractual Evidence.** Evidence of an agreement shall be provided between the participating property owners and facility's owner or operator confirming the owner or operator has permission of the property owners to apply for the necessary permits for construction and operation of the solar energy system. A copy of the applicant's easement, lease, or other contractual arrangement with the property owners for the listed parcels granting authority for use shall be provided. This shall be in the form of copies of documents recorded with the St. Clair County Register of Deeds. Copies of recorded documents must also be provided for any agreements entered into by non-participating landowners.
- (8) **Parcel Identification.** All parcels that will be included as participating or non-participating parcels in the large-scale solar energy system shall be identified in the application. This includes parcels that will be traversed during any construction, on which transmission or collection lines cross, for driveways and access roads or for which any form of an easement agreement is granted to the applicant. An address, or the nearest crossroads if no address is available, a parcel identification number, and a legal description for each parcel shall be provided.
- (9) **Site Plan.** A site plan drawn to scale shall be submitted pursuant to Section 18.06. In addition to the requirements specified in Section 18.06, the site plan shall provide the following:
 - (a) Identification of project boundaries and delineation of all lots and parcels within the project boundaries.
 - (b) Identification of Participating and Non-participating parcels.
 - (c) Delineation of County drains and other drainage ways, and the layout of agricultural drain tile fields.
 - (d) A description of the proposed technology from the system manufacturer.
 - (e) Locations and dimensions of solar panel arrays and ancillary equipment and buildings.
 - (f) Locations of existing and proposed transmission lines.
 - (g) Footprints of existing structures and fence lines on participating and non-participating parcels.
 - (h) Topographic grades on participating parcels at 2-foot intervals.
 - (i) Documentation and delineation of existing wooded areas, regulated wetlands, regulated floodplains, threatened and endangered species, and lakes, streams, or ponds.

- (j) Identification of existing conservation areas and state game areas on and adjacent to the project site.
 - (k) Locations of property lines, roads rights-of-way, other rights-of-way and easements, and required setbacks.
 - (l) Proposed improvements to public roads to provide access to the proposed solar energy facility.
 - (m) The locations, grades, and dimensions of temporary and permanent access roads or driveways from the nearest county road or state highway.
 - (n) Existing and proposed aboveground and underground utilities located on participating or non-participating parcels, such as gas lines, telephone lines, cable lines, etc.
 - (o) New above and below-ground infrastructure that connects the large-scale solar energy system to the utility grid.
 - (p) Locations and dimensions of proposed signs.
 - (q) Location and orientation of any exterior lighting, which shall comply with the Brockway Township Outdoor Lighting Ordinance. Batteries used in relation to lighting shall be shown on the site plan.
 - (r) Locations of any structures or trees greater than six (6) inches caliper to be removed.
 - (s) Methods for dust and erosion control during construction.
 - (t) Estimated number of construction jobs and estimated number of permanent jobs associated with the development.
- (10) **Visual Impact.** The applicant shall demonstrate the visual impact of the project using photos or renditions of the project or similar projects.
- (11) **Environmental Analysis.** An environmental analysis shall be prepared and submitted, which shall demonstrate the mitigation measures to minimize impacts on natural resources and wildlife. The analysis shall demonstrate compliance with the Federal Endangered Species Act and Michigan's endangered species protection laws. The environmental analysis shall demonstrate compliance with the Michigan Natural Resources and Environmental Protection Act (Public Act 451 of 1994, as amended), particularly as it relates to protection of water supply and quality, inland lakes and streams, wetlands, soil erosion and sedimentation control, and endangered species protection.
- (12) **Soil Erosion Plan.** A soil erosion and sedimentation control plan must be submitted, which shall be subject to approval by the St. Clair County designated Soil Erosion Control Officer.
- (13) **Waste Disposal.** The amount and type of solid or hazardous waste generated by the project shall be identified. A plan for spill prevention, clean-up, and disposal of fuels, oils, and hazardous wastes shall be submitted.
- (14) **Water and Chemical Use.** The method and frequency of cleaning the solar panels shall be outlined in writing. The quantity of water, and the quantity and type of detergents, surfactants, and other chemicals, used for each cleaning shall be listed. If a stormwater discharge permit from the State of Michigan is required, evidence of such a permit shall be provided prior to site preparation and construction.
- (15) **Solar glare.** The applicant shall provide a review of reflective angles to ensure unreasonable glare will not impact adjacent residents, airplane pilots, and motorists, using the most current Solar Glare Hazard Analysis Tool (SGHAT)

available through Sandia National Laboratories, or a commercially available equivalent.

- (16) **Transportation Plan.** A transportation plan shall be provided, which shall identify the roads to be used to provide access during construction and subsequent operation of the solar energy facility. The transportation plan shall address dust control and maintenance of the roads. Due to infrequent access to such facilities after construction is completed, access drives to solar panels need not be paved. Parking lots and access drives associated with any related offices shall be paved pursuant to Section 16.19.
- (17) **Public Safety Concerns.**
- (a) Potential hazards to adjacent properties, public roads, and to the community in general shall be identified. Emergency and normal shutdown procedures shall be described.
 - (b) An unredacted safety manual for all components of the project and material safety data sheets that include the type and quantity of all materials used in the operation of all equipment shall be submitted for distribution to first responders to be kept with the St. Clair County Emergency Manager and the Township Board. This safety manual should include, but not be limited to, what to do if the solar facility catches fire, what to do if the site floods, etc.
- (18) **Complaint Tracking and Resolution.** The applicant shall engage a Township-approved complaint vendor to submit a detailed, written complaint, web-based resolution process to resolve complaints from the Township board, property owners, or residents concerning the construction or operation of the large-scale solar energy system. The complaint resolution process, which must be approved by the Planning Commission as a condition of approval of the special land use permit application, shall include the following elements at minimum:
- (a) The complaint vendor shall report to the Township Board
 - (b) The complaint vendor shall manage a public website that includes a time-stamped log of all complaints. Methods of contact shall include voice, text, and email.
 - (c) The Township shall have management control of the complaint website and oversight of hosting company. The applicant shall not be permitted to edit, change, or control the site.
 - (d) The complaint vendor shall log into site and update status of each complaint's resolution with complete logging.
 - (e) A complaint investigation escrow account in the amount of \$25,000 shall be established with the Township by the applicant for investigation of complaints. Funds in this account may be used at the discretion of the Township Board for investigation of complaints. This fund must be replenished by the applicant or solar facility owner at any point that the balance falls below \$10,000.
 - (f) A flow chart shall be provided showing the complaint response protocol including (1) a time limit for acting on and resolving complaints, (2) how complaints are recorded and dealt with, and (3) a provision specifying that resolution in some instances shall include rendering the unit inoperable.

- (19) **Analyses and Studies.** The results and data from all studies and evaluations required to demonstrate compliance with the requirements of this Zoning Ordinance shall be provided. This includes certifications and attestation showing how the large-scale solar energy system will meet or exceed all standards and requirements of this ordinance.
- (20) **Insurance.** Proof of the applicant's public liability insurance shall be provided at the time of application. The policy must provide for bodily injury and property damage and must name Brockway Township as an additional insured. The applicant shall insure for liability for the large-scale solar energy system until removed for at least \$25,000,000 per occurrence to protect the applicant, Township, and property owner. Proof of a current policy is required annually and must be provided each year to the Township prior to the anniversary date of the SLUP.
- (21) **Decommissioning Plan.** A decommissioning plan shall be submitted to specify procedures to be followed when the system is abandoned (see definition of Abandonment, previously). The decommissioning plan shall include the following, at minimum:
- (a) The anticipated life of the project.
 - (b) A detailed plan for removal of solar energy components and restoration of the site.
 - (c) The applicant shall furnish the Township with professional engineers' estimates of decommissioning costs from three (3) non-applicant related independent sources along with a detailed decommissioning process plan.
 - (d) A performance guarantee in an amount equal to or greater than one hundred twenty five percent (125%) of the estimated averaged cost of decommissioning shall be submitted to the Township.
 - (e) The performance guarantee shall be in the form of a surety bond, cash escrow, or irrevocable letter of credit issued by a 3rd party, which shall be supplied by the applicant to provide coverage for the entire project lifespan. The performance guarantee shall be submitted after the SLUP has been approved but before construction commences on the large-scale solar energy installation. The performance guarantee shall be posted and maintained with a company licensed to do business in the State of Michigan or a Federal or State chartered lending institution acceptable to the Township. If a surety bond is posted, the bonding agency must be rated A+ or better.
 - (f) The amount of the performance guarantee shall be reviewed every five (5) years for the life of the project to account for inflation and changes in decommissioning costs. Revised cost estimates shall be submitted to the Township Board by the applicant for review. If warranted due to an increase in decommissioning costs, the applicant shall increase the performance guarantee in an amount equal to or greater than one hundred twenty five percent (125%) of the new estimated cost of decommissioning.
 - (g) The bonding agency or lending institution shall provide the Township with 180 days' notice of the expiration of the security bond, escrow account, or letter of credit. Lapse of a valid performance guarantee shall immediately revoke all facility permits issued by the Township and the

- applicant shall cease operation immediately. The Township shall take action permitted by law against assets of facility or the parent company.
- (h) In the event of a sale or transfer of ownership or operation of the solar energy facility, the original performance guarantee shall be maintained throughout the entirety of the process and shall not be altered.
 - (i) The applicant shall acknowledge that failure to keep the surety bond in full force and effect at all times while the solar energy system exists shall constitute a material and significant violation of the special land use approval and this ordinance and will subject the owner to all available enforcement remedies, including possible revocation of the special land use approval.
 - (j) The applicant shall acknowledge that the solar energy system owner shall be responsible for the payment of all costs, including attorney fees, incurred by the Township in securing the removal of the solar energy system.
 - (k) The Township shall have access to the funds provided for security for the expressed purpose of completing decommissioning if decommissioning is not completed by the applicant within three hundred sixty-five (365) days of the end of the project life or facility abandonment.
 - (l) Township officials or their designated representatives shall be granted the right of entry onto the site, pursuant to reasonable notice, to evaluate the pace of decommissioning or to effectuate decommissioning.
 - (m) The Township is granted the right to seek injunctive relief to effect or complete decommissioning, as well as the Township's right to seek reimbursement from applicant or applicant's successor for decommissioning costs in excess of the amount deposited in escrow and to file a lien against any real property owned by applicant or applicant's successor, or in which they have an interest, for the amount of the excess, and to take all steps allowed by law to enforce said lien. Financial provisions shall not exceed reasonable anticipated decommissioning costs.

c. Standards and Requirements.

- (1) **Transferability of Approval.** A special land use permit for a large-scale solar energy system is transferable to a new owner. The new owner must register its name, business address, and contact information with the Township and must comply with this Ordinance and all conditions of approval.
- (2) **Public Act 116 Property.** Large-scale solar energy facilities are permitted on properties enrolled in the Public Act 116 Farmland and Open Space Preservations Program, provided that the applicant files a change in land use status request with the appropriate State of Michigan office and receives amended approval for locating a solar energy facility on the property. Documentation of such must be provided prior to beginning construction on any portion of the project.
- (3) **Airport and Aircraft.** A large-scale solar energy facility shall not interfere with rules, regulations, or procedures related to operation of aircraft or use of an airport.
- (4) **Required Approvals and Permits.** It shall be unlawful to construct or

- operate a solar energy system unless special land use and final site plan approvals have been granted and a zoning permit has been issued.
- (5) **Zoning.** Large-scale solar energy systems are permitted in the AG, Agricultural Districts in Section 25 on the east side M-19 (Emmett Road) between Wilkes Road and Norman Road and Section 36 on the east side of M-19 (Emmett Road) between Norman Road and M-136 (Metcalf Road). .
 - (6) **Minimum Lot Size.** Large-scale solar energy facilities shall not be constructed on parcels less than forty (40) acres in size. The minimum acreage may consist of multiple contiguous parcels totaling forty (40) or more acres.
 - (7) **Minimum Lot Coverage.** Large-scale solar energy facilities shall not count toward the maximum lot coverage requirements for the district.
 - (8) **Maximum Height.** Large-scale solar energy facilities shall not exceed twenty (20) feet when oriented at maximum tilt. Lightning rods may exceed twenty (20) feet in height if necessary to provide proper protection. Accessory buildings and structures shall comply with the height restrictions specified in the district in which they are located.
 - (9) **Required Setbacks.**
 - (a) No part of a large-scale solar energy system shall be located closer than one hundred fifty (150) feet to a front lot line or road right-of-way line.
 - (b) No part of a large-scale solar energy system shall be located closer than one hundred fifty (150) feet to a property line of a nonparticipating parcel.
 - (c) No part of a large-scale solar energy system shall be located closer than two hundred fifty (250) feet to a residential building on a nonparticipating parcel.
 - (d) If a large-scale solar energy system consists of two (2) or more abutting parcels, there shall be no setback requirement along the shared property lines of the abutting parcels, except where the shared property lines is along a road, in which case the minimum setback shall be one hundred fifty (150) feet.
 - (e) No part of a large-scale solar energy system shall be located closer than fifty (50) feet to a County drain easement.
 - (10) **Fencing.**
 - (a) Notwithstanding the requirements in Section 16.12, large-scale solar energy systems shall be completely enclosed by a seven (7) foot high fence to restrict unauthorized access, unless otherwise required by the National Electrical Code. Barbed wire and electric fencing are prohibited, except where electric fencing is used to enclose livestock.
 - (b) Fencing is not subject to setback requirements if screening requirements can be met. However, fencing shall be placed inside the perimeter screening required in item (13)(b), below.
 - (c) Access gates shall be always locked when authorized personnel are not present. A means of access shall be provided for emergency personnel (Knox box, electronic keypad, passcode, etc.).
 - (11) **Sound Pressure Level.** The audible sound from a large-scale solar energy system including ancillary equipment shall not exceed forty five (45) dB(A) Lmax measured at the non-participating property line closest to the solar energy system. Sound measurements shall be instantaneous rather than averaged. If necessary, a sound barrier consisting of a solid decorative masonry wall shall be

constructed to attenuate (dampen) noise levels surrounding electrical inverters. The wall shall be no more than twenty (20) feet from the inverters, and no less than the height of the inverters but not more than three (3) feet higher than the inverters. Sound analysis or modeling performed by a sound engineer selected by the Township must confirm that the large-scale solar energy system will not exceed the maximum permitted sound pressure level. Modeling and analysis may be based on the solar equipment manufacturer's data. However, measured data from existing and similar solar energy facilities shall be submitted with the modeling report.

(12) **Site Clearing.**

- (a) Clearing of natural vegetation shall be limited to what is necessary for the construction and maintenance of the installation. No land assets, such as but not limited to, topsoil, sand, gravel, etc. may be removed from the premises without the written approval of the landowner and must be done in accordance with Township Ordinances (see Section 14.15). A copy of the landowner's written approval for removal of any such assets shall be submitted to the Township prior to removal.
- (b) Large-scale tree removal, deforestation of mature forests, and alteration to natural landforms is prohibited. Site clearing is limited to removal of no more than five percent (5%) of the existing forested area, which must be clearly identified on the site plan.

(13) **Landscaping.**

- (a) A ground cover suitable for growth in the shade must be planted within (4) four months of project completion. The ground cover planted must be one that the USDA has determined will grow in this region.
- (b) The perimeter of a large-scale solar energy facility shall be screened by evergreen or native vegetative plantings whenever existing natural vegetation does not otherwise reasonably obscure the solar energy facilities from public roads and adjacent residential structures, subject to the following requirements:
 - (i) When a large-scale solar energy system is adjacent to a residentially zoned or used lot, front, side, and rear yard screening shall be required as determined by the Planning Commission to address specific site needs at the time of site plan review.
 - (ii) The landscape screening shall use plant materials that will blend into the natural setting and existing environment without adverse visual impact on the natural features or character of the surrounding area.
 - (iii) The landscape screening shall be within a twenty-five (25) foot wide greenbelt surrounding the large-scale solar energy system on all sides. The screening shall consist of a double row of evergreen trees planted no farther than fifteen (15) feet apart. The evergreen trees shall be eight (8) feet in height at the time of planting. A native vegetative buffer may be approved by the Planning Commission if it has equal screening value.
 - (iv) All dead or diseased plant material shall be replaced by the applicant within six (6) months, or within the next appropriate planting period, whichever occurs first.

- (v) Failure to install or continuously maintain the required landscaping shall constitute a violation of this Ordinance and the special land use permit may be subject to revocation.
- (14) **Signs.** No advertising or non-project related graphics shall be displayed on the solar arrays or other components of the large-scale solar energy facilities. However, a two (2) square foot sign shall be posted at the entrance(s) to the facility, which shall be kept up to date with the following information:
 - (a) The owner's name and operator's name.
 - (b) Emergency contact numbers (more than one).
 - (c) Warning of high voltage associated with the solar energy facility (a similar warning sign shall be posted on all pad-mounted transformers, substations, and inverters).
- (15) **Electrical Cables.** All electrical lines shall comply with all applicable codes and standard utility requirements. Above ground transmission lines shall be prohibited within the site. Underground lines shall be placed at a depth of six (6) feet or deeper.
- (16) **Battery Banks.** Battery banks for the purposes of storing and delivery of electricity to the grid are not permitted. This prohibition shall not restrict the use of batteries for emergency backup for lighting and computer operation.
- (17) **Lighting.** Lighting shall be limited to inverters, substation, and entrance locations only. Lighting shall comply with the Brockway Township Outdoor Lighting Ordinance.
- (18) **Stray Voltage Assessment.** No stray voltage originating from large-scale solar energy systems may be detected on any participating or non-participating parcels. 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 proposed solar energy facility parcels. 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 shall seek written permission from the property owners prior to conducting testing on such owners' property. The applicant 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 parcel(s) included in the list of project parcels may not refuse the stray voltage testing if they have a MDARD registered livestock facility on the parcel or a portion of the parcel.
- (19) **Appearance of Accessory Buildings.** Accessory buildings and structures shall be designed to blend into the existing environment through proper use of materials, texture, and colors.
- (20) **Protection of Drain Tile.** Any damage to existing agricultural drainage tile during construction of the large-scale solar energy system shall be repaired, and a report submitted to the landowner and Township. While the facility is in operation, the drain tiles are to be re-inspected every five (5) years for any damage and repaired within sixty (60) days of discovery. The Township reserves the right to have the Building Inspector or other agent present at the time of repair. Solar panel support structures or foundations shall be constructed to preserve any drainage field tile or system.
- (21) **Local, State, and Federal Permits.** Large-scale solar energy systems shall be

constructed to attenuate (dampen) noise levels surrounding electrical inverters. The wall shall be no more than twenty (20) feet from the inverters, and no less than the height of the inverters but not more than three (3) feet higher than the inverters. Sound analysis or modeling performed by a sound engineer selected by the Township must confirm that the large-scale solar energy system will not exceed the maximum permitted sound pressure level. Modeling and analysis may be based on the solar equipment manufacturer's data. However, measured data from existing and similar solar energy facilities shall be submitted with the modeling report.

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- (b) Large-scale tree removal, deforestation of mature forests, and alteration to natural landforms is prohibited. Site clearing is limited to removal of no more than five percent (5%) of the existing forested area, which must be clearly identified on the site plan.

(13) **Landscaping.**

- (a) A ground cover suitable for growth in the shade must be planted within (4) four months of project completion. The ground cover planted must be one that the USDA has determined will grow in this region.
- (b) The perimeter of a large-scale solar energy facility shall be screened by evergreen or native vegetative plantings whenever existing natural vegetation does not otherwise reasonably obscure the solar energy facilities from public roads and adjacent residential structures, subject to the following requirements:
 - (i) When a large-scale solar energy system is adjacent to a residentially zoned or used lot, front, side, and rear yard screening shall be required as determined by the Planning Commission to address specific site needs at the time of site plan review.
 - (ii) The landscape screening shall use plant materials that will blend into the natural setting and existing environment without adverse visual impact on the natural features or character of the surrounding area.
 - (iii) The landscape screening shall be within a twenty-five (25) foot wide greenbelt surrounding the large-scale solar energy system on all sides. The screening shall consist of a double row of evergreen trees planted no farther than fifteen (15) feet apart. The evergreen trees shall be eight (8) feet in height at the time of planting. A native vegetative buffer may be approved by the Planning Commission if it has equal screening value.
 - (iv) All dead or diseased plant material shall be replaced by the applicant within six (6) months, or within the next appropriate planting period, whichever occurs first.

maintained in good repair and condition. Malfunctioning, defective, worn, or non-compliant solar energy components shall be repaired or replaced in a timely manner. The site within the large-scale solar energy system facility shall be kept neat, clean, and free of refuse, waste, and unsightly, hazardous, or unsanitary conditions.

- (2) **Notice of Noncompliance.** If the Township Board or Zoning Administrator determines that a large-scale solar energy facility fails to meet the requirements of this ordinance and the special land use permit, the Zoning Administrator or Township Supervisor, shall provide notice to the applicant of the noncompliance, at which point the applicant shall have thirty (30) days to resolve the issue. If the noncompliance issue is a safety hazard as determined by the Zoning Administrator or Township Supervisor, the applicant shall have only seven (7) days to resolve the issue. If the applicant has not remedied the noncompliance issues in the time periods, the applicant shall immediately shut down the large-scale solar energy system and not operate, start or restart the system until the issues have been resolved.
- (3) **Maintenance Log.** The applicant shall keep a maintenance log on the large-scale solar energy system, which shall be available for the Township's review within forty-eight (48) hours of being requested.

g. Roads.

Any material damage to a public road located within the Township resulting from the construction, maintenance, or operation of a large-scale solar energy facility shall be repaired at the applicant's expense. The applicant shall submit to the Michigan Department of Transportation or St. Clair County Road Commission, as appropriate, a description of the routes to be used by construction and delivery vehicles and anticipated road improvements that will be necessary to accommodate construction vehicles, equipment, and deliveries. The applicant shall abide by all State or County requirements regarding the use and/or repair of the roads.

h. Compliance with Applicable Codes and Regulations.

Large-scale solar energy facilities shall comply with the State Construction Code, the National Electrical Code, and other applicable Local, County, State, and Federal codes.

- (1) Ground shall not be broken, nor shall any construction or installation commence until all required permits have been obtained for the entire project.
- (2) The applicant shall provide evidence to the Township of compliance with all applicable laws and regulations.
- (3) A list of all anticipated required local, county, state, federal permits, authorizations, and approvals related to the project must be provided to the Township at the time the application is submitted. The applicant shall continue to submit copies of all such permits and approvals that have been obtained as they are received by the applicant.

i. Remedies.

If an applicant or operator fails to comply with this Ordinance, the Township, in addition to any other remedy under this Ordinance, may revoke the special land use permit and site

plan approval after giving the applicant or 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.

j. **Large-Scale Solar Energy Facilities under Michigan Public Act 233 of 2023.** On or after November 29, 2024, once Public Act 233 of 2023 is in effect, the following provisions apply to Large-Scale Solar Energy Facilities with a nameplate capacity of 50 megawatts or more. To the extent these provisions conflict with the provisions in subsections a through i, above (regulating Large-Scale Solar Energy Facilities), the provisions below control as to such Large-Scale Solar Energy Facilities. All provisions in subsections a through i, above, that do not conflict with this subsection remain in full force and effect. This subsection does not apply if Public Act 233 of 2023 is repealed, enjoined, or otherwise not in effect, and does not apply to Large-Scale Solar Energy Facilities with a nameplate capacity of less than 50 megawatts.

- (1) **Setbacks.** Large-Scale Solar Energy Facilities shall comply with the following minimum setback requirements, with setback distances measured from the nearest edge of the perimeter fencing of the facility:

Setback Description	Minimum Setback Distance
Occupied community buildings and dwellings on nonparticipating properties	300 feet from the nearest point on the outer wall
Public road right-of-way	50 feet measured from the nearest edge of a public road right-of-way
Nonparticipating parcels	50 feet measured from the nearest shared property line

- (2) **Fencing.** Fencing for the Large-Scale Solar Energy System shall comply with the latest version of the National Electrical Code as of November 29, 2024, or as subsequently amended.
- (3) **Height.** Solar panel components shall not exceed a height of twenty-five (25) feet above ground when the arrays are at full tilt.
- (4) **Noise.** The Large-Scale Solar Energy System shall not generate a maximum sound in excess of fifty-five (55) decibels as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute.
- (5) **Lighting.** The Large-Scale Solar Energy System shall implement dark sky friendly lighting solutions.
- (6) **Environmental Regulations.** The Large-Scale Solar Energy System shall comply with applicable state and federal environmental regulations.

- (7) **Host Community Agreement.** The applicant shall enter into a host community agreement with the Township. The host community agreement shall require that, upon commencement of any operation, the Large-Scale Solar Energy System owner must pay the Township \$2,000.00 per megawatt of nameplate capacity. The payment shall be used as determined by the Township for police, fire, public safety, or other infrastructure, or for other projects as agreed to by the local unit and the applicant.

Section 3. Amendment of Section 4.03.

Sections 4.03 of Brockway Township's Zoning Ordinance is hereby amended to add "Large-Scale Solar Energy Systems" as a special land use in the AG, Agricultural District in Section 25 on the east side M-19 (Emmett Road) between Wilkes Road and Norman Road and Section 36 on the east side of M-19 (Emmett Road) between Norman Road and M-136 (Metcalf Road) .

Section 4. 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 5. Repealer.

1. 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.
2. **An Ordinance to Establish Standards and Procedures for the Installation and Operation of Solar Facility/Farm Energy Systems Greater than 20 kw Within Brockway Township**, adopted by the Township Board on May 9, 2023, is hereby repealed in its entirety.

Section 6. Effective Date.

This Ordinance takes effect seven (7) days after publication as provided by law.