

Curtis Township Ordinance No. ____ of 2023

An ordinance to amend the Curtis Township Zoning Ordinance Article 2 (Definitions and Rules Applying To Text), Article 5 (District Regulations), and Article 8 (Supplemental Site Development Standards) to allow for Solar Energy Systems.

Curtis Township, Alcona County, Michigan ordains:

Section 1: Amendments to the Curtis Township Zoning Ordinance

That the Curtis Township Zoning Ordinance, Section 2.01 (Definitions) is hereby amended to read as follows:

Solar Energy Systems Definitions:

(add the following)

Accessory Ground-Mounted Solar Energy System: A ground-mounted solar energy system with the purpose primarily of generating electricity for the principal use on the site.

Building-Integrated Solar Energy System: A solar energy system that is an integral part of a primary or accessory building or structure (rather than a separate mechanical device), replacing or substituting for an architectural or structural component of the building or structure. Building-integrated systems include, but are not limited to, photovoltaic or hot water solar energy systems that are contained within roofing materials, windows, skylights, and awnings.

Ground-Mounted Solar Energy System: A solar energy system mounted on support posts, like a rack or pole, that are attached to or rest on the ground.

Maximum Tilt: The maximum angle of a solar array (i.e., most vertical position) for capturing solar radiation as compared to the horizon line.

Minimum Tilt: The minimal angle of a solar array (i.e., most horizontal position) for capturing solar radiation as compared to the horizon line.

Non-Participating Lot(s): One or more lots for which there is not a signed lease or easement for development of a principal-use SES associated with the applicant project.

Participating Lot(s): One or more lots under a signed lease or easement for development of a principal-use SES associated with the applicant project.

Photovoltaic (PV) System: A semiconductor material that generates electricity from sunlight.

Principal-Use Solar Energy System: A commercial, ground-mounted solar energy system that converts sunlight into electricity for the primary purpose of off-site use through the electrical grid or export to the wholesale market.

Principal-Use (Large) Solar Energy System: A Principal-Use SES generating more than 2 MW DC for the primary purpose of off-site use through the electrical grid or export to the wholesale.

Principal-Use (Small) Solar Energy System: A Principal-Use SES generating up to and including 2 MW DC for the primary purpose of off-site use through the electrical grid or export to the wholesale market.

Repowering: Reconfiguring, renovating, or replacing an SES to maintain or increase the power rating of the SES within the existing project footprint.

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.

Solar Array: A photovoltaic panel, solar thermal collector, or collection of panels or collectors in a solar energy system that collects solar radiation.

Solar Energy System (SES): A photovoltaic system or solar thermal system for generating and/or storing electricity or heat, including all above and below ground equipment or components required for the system to operate properly and to be secured to a roof surface or the ground. This includes any necessary operations and maintenance building(s), but does not include any temporary construction offices, substation(s) or other transmission facilities between the SES and the point of interconnection to the electric grid.

Solar Thermal System: A system of equipment that converts sunlight into heat.

Wildlife-Friendly Fencing: A fencing system with openings that allow wildlife to traverse over or through a fenced area.

That the Curtis Township Zoning Ordinance, Section 5.01 (Single-Family Residential District) is hereby amended to read as follows:

Section 5.01.2 Permitted Uses

(ADD) G. Solar Energy Panels (Accessory)

That the Curtis Township Zoning Ordinance, Section 5.02 (Mixed Residential District) is hereby amended to read as follows:

Section 5.02.2 Permitted Uses

(ADD) E. Solar Energy Panels (Accessory)

That the Curtis Township Zoning Ordinance, Section 5.03 (Rural Residential District) is hereby amended to read as follows:

Section 5.03.2 Permitted Uses

(ADD) H. Solar Energy Panels (Accessory)

That the Curtis Township Zoning Ordinance, Section 5.04 (Forest Recreation District) is hereby amended to read as follows:

Section 5.04.2 Permitted Uses

(ADD) M. Solar Energy Panels (Accessory)

Section 5.04.3 Uses Subject to Special Approval

(ADD) X. Principal-Use (Large) Solar Energy System and Principal-Use (Small) Solar Energy System

That the Curtis Township Zoning Ordinance, Section 5.05 (Agricultural District) is hereby amended to read as follows:

Section 5.05.2 Permitted Uses

(ADD) R. Solar Energy Panels (Accessory)

Section 5.05.3 Uses Subject to Special Approval

(ADD) AA. Principal-Use (Large) Solar Energy System and Principal-Use (Small) Solar Energy System

That the Curtis Township Zoning Ordinance, Section 5.06 (Neighborhood Business District) is hereby amended to read as follows:

Section 5.06.2 Permitted Uses

(ADD) H. Solar Energy Panels (Accessory)

That the Curtis Township Zoning Ordinance, Section 5.07 (Corridor Commercial District) is hereby amended to read as follows:

Section 5.07.2 Permitted Uses

(ADD) R. Solar Energy Panels (Accessory)

That the Curtis Township Zoning Ordinance, Section 5.08 (Industrial District) is hereby amended to read as follows:

Section 5.08.2 Permitted Uses

(ADD) Q. Solar Energy Panels (Accessory)

Section 5.08.3 Uses Subject to Special Approval

(ADD) O. Principal-Use (Large) Solar Energy System and Principal-Use (Small) Solar Energy System

That the Curtis Township Zoning Ordinance, Article 8.3 (Supplemental Regulations) is hereby amended to read as follows:

(add the following)

Section 8.35 Site Plan and Permit Process for: Photovoltaic Solar Energy Systems

1. Roof-Mounted or Building-Mounted Photovoltaic Systems

Roof-Mounted SES, ~~Accessory Ground Mounted SES, and Building-Integrated SES~~ are permitted in all zoning districts where structures of any sort are allowed and shall meet the following requirements:

- A. **Height:** Roof-Mounted SES shall not exceed five (5) feet above the finished roof and are exempt from any rooftop equipment or mechanical system screening.
- B. **Nonconformities:** A Roof-Mounted SES or Building-Mounted SES installed on a nonconforming building, structure, or use shall not be considered an expansion of the nonconformity.
- C. **Application:** All SES applications must include a plot plan. Applications for Roof-Mounted SES and Building-Mounted must include horizontal and vertical elevation drawings that show the location and height of the SES on the building and dimensions of the SES.
- D. **A building-mounted or roof-mounted SES shall adhere to district setbacks for a principal building but may encroach into designated principal building setbacks by twelve (12) inches.**

2. Accessory Ground Mounted Photovoltaic Systems

Accessory Ground Mounted Photovoltaic Systems are permitted in all zoning districts where structures of any sort are allowed, and shall meet the following requirements:

- A. **Height:** Ground-Mounted Photovoltaic Systems shall not exceed twenty (20) feet measured from the ground to the top of the system when oriented at maximum tilt.
- B. **Setbacks:** Ground-mounted accessory solar energy panels shall adhere to setbacks and location established for detached accessory buildings pursuant to Section 3.03. Setbacks are measured from the lot line to the nearest portion of the structure when oriented at minimum tilt. If no solar access is available in the location required, the Planning Commission may approve ground-mounted solar energy panels in an alternate location

on a case-by-case basis. Screening from the road or neighboring property may be required.

- C. **Lot Coverage:** Ground-mounted accessory solar energy panels (all panels totaled together on one lot) shall be no greater than half (1/2) of the square footage of the principal dwelling.
- D. **Visibility:** (Residential): A Ground-Mounted SES in residential districts shall be located in the side or rear yard to minimize visual impacts from the public right-of-way(s).
 - (1) Ground-Mounted SES may be placed in the front yard with administrative approval, where the applicant can demonstrate that placement of the SES in the rear or side yard will:
 - i. Decrease the efficiency of the SES due to topography, accessory structures, or vegetative shading from the subject lot or adjoining lots.
 - ii. Interfere with septic system, accessory structures, or accessory uses; or
 - iii. Require the SES to be placed on the waterfront side of the building housing the primary use [where applicable].
- E. **Exemptions:** A SES used to power a single device or specific piece of equipment such as a lawn ornament, lights, weather station, thermometer, clock, well pump or other similar singular device is exempt from subsection 2.
- F. **Nonconformities:** A Ground-Mounted SES installed on a nonconforming lot or use shall not be considered an expansion of the nonconformity.
- G. **Application:** All SES applications must include a plot plan. Applications for Ground Mounted SES must include drawings that show the location of the system on the property, height, tilt features (if applicable), the primary structure, accessory structures, and setbacks to property lines. Accessory use applications that meet the ordinance requirements shall be granted administrative approval.

3. Building-Integrated Solar Energy Systems

Building-Integrated SES are subject only to zoning regulations applicable to the structure or building and not subject to accessory ground or roof-mounted SES permits.

- 4. **Small Principal-Use SES (Commercial):** A Small Principal-Use SES is a permitted use in AG, FR, and I zoning districts subject to site plan review and shall meet all the following requirements:

- A. **Height:** Total height shall not exceed twenty (20) feet measured from the ground to the top of the system when oriented at maximum tilt.
- B. **Reflection/Glare:** Solar collection devices, or a combination of devices, shall be designed and located to avoid glare or reflection onto adjacent properties and adjacent roadways and shall not interfere with traffic or create a safety hazard. This may be accomplished by both the placement and angle of the collection devices as well as human-made or environmental barriers. Glare intensity is considered an issue if it measures more than twenty (20%) percent of the incident sun intensity. Plans to reduce glare may be required in the initial materials submitted.
- C. **Setbacks:** Setback distance shall be measured from the property line or road right-of-way to the closest point of the solar array at minimum tilt or any SES components and as follows:
- (1) A Ground-Mounted SES shall follow the setback distance for primary buildings or structures for the district in which it is sited.
 - (2) A Ground-Mounted SES is not subject to property line setbacks for common property lines of two (2) or more participating lots, except road right-of-way setbacks shall apply.
- D. **Fencing:** A Small Principal-Use SES may be secured with perimeter fencing to restrict unauthorized access. If installed, perimeter fencing shall be a maximum of eight (8) feet in height and comply with the requirements set forth in Section 3.10.
- E. **Screening/Landscaping:** A Small Principal-Use SES shall be designed to follow the screening and/or landscaping standards for the zoning district of the project site. Any required screening and landscaping shall be placed outside the perimeter fencing.
- (1) In districts that call for screening or landscaping along rear or side property lines, these shall only be required where an adjoining non-participating lot has an existing residential or public use.
 - (2) When current zoning district screening and landscaping standards are determined to be inadequate based on a legitimate community purpose consistent with local government planning documents, the Planning Commission may require substitute screening consisting of native deciduous trees planted thirty (30) feet on center, and native evergreen trees planted fifteen (15) feet on center along existing non-participating residential uses.
 - (3) The Curtis Township Planning Commission may reduce or waive screening requirements provided that any such adjustment is in keeping with the intent of the Ordinance and is appropriately documented (e.g. abutting participating lots; existing vegetation).

- (4) Screening/landscaping detail shall be submitted as part of the site plan that identifies the type and extent of screening for a Small Principal-Use SES, which may include plantings, strategic use of berms, and/or fencing.
- F. **Ground Cover:** A Small Principal-Use SES shall include the installation of perennial ground cover vegetation maintained for the duration of operation until the site is decommissioned. The applicant shall include a ground cover vegetation establishment and management plan as part of the site plan.
- (1) An SES utilizing agrivoltaics is exempt from perennial ground cover requirements for the portion of the site employing the dual-use practice.
- (2) Project sites with majority existing impervious surface or those that are included in a brownfield plan adopted under the Brownfield Redevelopment Financing Act, PA 381 of 1996, as amended, are exempt from ground cover requirements. These sites must comply with the on-site stormwater requirements of the ordinance.
- G. **Lot Coverage:** A Small Principal-Use SES shall not count towards the maximum lot coverage or impervious surface standards for the district.
- H. **Wiring:** SES wiring (including communication lines) may be buried underground. Any above-ground wiring within the footprint of the SES shall not exceed the height of the solar array at maximum tilt.
- I. **Battery Storage:** Areas for battery storage shall be shown on the site plan, if applicable.
- J. **Lighting:** Lighting shall be limited to inverter and/or substation locations only. Light fixtures shall have downlit shielding and be placed to keep light on-site and glare away from adjacent properties, bodies of water, and adjacent roadways. Flashing or intermittent lights are prohibited.
- K. **Signage:** An area up to one hundred fifty (150) (10'x15') square feet may be used for signage at the project site. Any signage shall meet the setback, illumination, and materials/construction requirements of the zoning district for the project site.
- L. **Sound:** The sound pressure level of a Small Principal-Use SES and all ancillary solar equipment shall not exceed forty-five (45) dBA (Leq (1-hour)) at the property line of an adjoining non-participating lot. The site plan shall include modeled sound isolines extending from the sound source to the property lines to demonstrate compliance with this standard.
- M. **Repowering:** In addition to repairing or replacing SES components to maintain the system, a Small Principal-Use SES may at any time be repowered by reconfiguring,

renovating, or replacing the SES to increase the power rating within the existing project footprint.

(1) A proposal to change the project footprint of an existing SES shall be considered a new application, subject to the ordinance standards at the time of the request.

N. **Decommissioning:** A decommissioning plan is required at the time of application.

(1) The decommissioning plan shall include:

- a. The anticipated manner in which the project will be decommissioned, including a description of which above-grade and below-grade improvements will be removed, retained (e.g. access drive, fencing), or restored for viable reuse of the property consistent with the zoning district.
- b. The projected decommissioning costs for removal of the solar energy facility (net of salvage value in current dollars) and soil stabilization, less the amount of the surety bond posted with the State of Michigan for decommissioning of panels installed on PA 116 lands.
- c. The method of ensuring that funds will be available for site decommissioning and stabilization (in the form of surety bond, irrevocable letter of credit, or cash deposit).

(2) A review of the amount of the performance guarantee based on inflation, salvage value, and current removal costs shall be completed every five (5) years, for the life of the project, and approved by the Township Board. A solar energy facility owner may at any time:

- a. Proceed with the decommissioning plan approved by the Planning Commission and remove the system as indicated in the most recent approved plan; or
- b. Amend the decommissioning plan with Planning Commission approval and proceed according to the revised plan.

5. **Large Principal-Use SES:** A large principal-use SES is a special land use in the AG, FR, and I zoning districts and shall meet the following requirements:

A. **Height:** Total height for a large principal-use SES shall not exceed twenty (20) feet.

B. **Reflection/Glare:** Solar collection devices, or a combination of devices, shall be designed and located to avoid glare or reflection onto adjacent properties and adjacent roadways and shall not interfere with traffic or create a safety hazard. This may be accomplished by both the placement and angle of the collection devices as well as human-made or

environmental barriers. Glare intensity is considered an issue if it measures more than twenty (20%) percent of the incident sun intensity. Plans to reduce glare may be required in the initial materials submitted.

- C. **Setbacks:** Setback distance shall be measured from the property line or road right-of-way to the closest point of the solar array at minimum tilt or any SES components and as follows:
- (1) In accordance with the setbacks for principal buildings or structures for the zoning district of the project site or fifty (50) feet from the property line of a non-participating lot.
 - (2) One hundred (100) feet from any existing dwelling unit on a non-participating lot.
 - (3) A Ground-Mounted SES is not subject to property line setbacks for common property lines of two (2) or more participating lots, except road right-of-way setbacks shall apply.
- D. **Fencing:** A large principal-use SES shall be secured with perimeter fencing to restrict unauthorized access. If installed, perimeter fencing shall be a maximum of eight (8) feet in height and comply with the requirements set forth in Section 3.10.
- E. **Screening/Landscaping:** A large principal-use SES shall follow the screening and/or landscaping standards for the zoning district of the project site. Any required screening and landscaping shall be placed outside the perimeter fencing.
- (1) In districts that call for screening or landscaping along rear or side property lines, these shall only be required where an adjoining non-participating lot has an existing residential or public use.
 - (2) When current zoning district screening and landscaping standards are determined to be inadequate based on a legitimate community purpose consistent with local government planning documents, the Planning Commission may require substitute screening consisting of native deciduous trees planted thirty (30) feet on center, and native evergreen trees planted fifteen (15) feet on center along existing non-participating residential uses.
 - (3) The Planning Commission may reduce or waive screening requirements provided that any such adjustment is in keeping with the intent of the Ordinance.
 - (4) Screening/landscaping detail shall be submitted as part of the site plan that identifies the type and extent of screening for a large principal-use SES, which may include plantings, strategic use of berms, and/or fencing.

- F. **Ground Cover:** A large principal-use SES shall include the installation of ground cover vegetation maintained for the duration of operation until the site is decommissioned. The applicant shall include a ground cover vegetation establishment and management plan as part of the site plan. Vegetation establishment must include invasive plant species control.
- G. **Lot Coverage:** A large principal-use SES shall not count towards the maximum lot coverage or impervious surface standards for the district.
- H. **Wiring: SES** wiring (including communication lines) may be buried underground. Any above-ground wiring within the footprint of the SES shall not exceed the height of the solar array at maximum tilt.
- I. **Battery Storage:** Areas for battery storage shall be shown on the site plan, if applicable.
- J. **Lighting:** Large principal-use SES lighting shall be limited to inverter and/or substation locations only. Light fixtures shall have downlit shielding and be placed to keep light on-site and glare away from adjacent properties, bodies of water, and adjacent roadways. Flashing or intermittent lights are prohibited.
- K. **Signage:** An area up to one hundred fifty (150) (10'x15') square feet may be used for signage at the project site. Any signage shall meet the setback, illumination, and materials/construction requirements of the zoning district for the project site.
- L. **Sound:** The sound pressure level of a large principal-use SES and all ancillary solar equipment shall not exceed forty-five 45 dBA (Leq (1-hour)) at the property line of an adjoining non-participating lot. The site plan shall include modeled sound isolines extending from the sound source to the property lines to demonstrate compliance with this standard.
- M. **Repowering:** In addition to repairing or replacing SES components to maintain the system, a large principal-use SES may at any time be repowered, without the need to apply for a new special land use permit, by reconfiguring, renovating, or replacing the SES to increase the power rating within the existing project footprint.
- (1) A proposal to change the project footprint of an existing SES shall be considered a new application, subject to the ordinance standards at the time of the request. Expenses for legal services and other studies resulting from an application to modify an SES will be reimbursed to Curtis Township by the SES owner in compliance with established escrow policy.
- N. **Decommissioning:** A decommissioning plan is required at the time of application.
- (1) The decommission plan shall include:

- i. The anticipated manner in which the project will be decommissioned, including a description of which above-grade and below-grade improvements will be removed, retained (e.g. access drive, fencing), or restored for viable reuse of the property consistent with the zoning district,
 - ii. The projected decommissioning costs for removal of the SES (net of salvage value in current dollars) and soil stabilization, less the amount of the surety bond posted with the State of Michigan for decommissioning of panels installed on PA 116 lands,
 - iii. The method of ensuring that funds will be available for site decommissioning and stabilization (in the form of surety bond, irrevocable letter of credit, or cash deposit), and
- (2) **Performance Guarantee:** As a condition of approval, prior to construction, the Planning Commission may require an owner to deposit funds in escrow with the Township or provide an insurance bond satisfactory to the Planning Commission to assure the removal of the solar energy facility. If required, such escrow deposit or insurance bond shall be in an amount equal to the cost of removal of the facility. The deposit or bond shall be maintained by successor owners of the facility.
- (3) Decommissioning an SES must commence when the soil is dry to prevent soil compaction and must be complete within eighteen (18) months after abandonment. An SES that has not produced electrical energy for twelve (12) consecutive months shall prompt an abandonment hearing.

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 Curtis 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 on the 8th day after the publication of the notice of adoption.