

153.006 DEFINITIONS

COMMERCIAL SOLAR ENERGY SYSTEM. An area of land designated for the purpose of producing photovoltaic electricity, which the power generated from a solar power system is sold to electric companies for distribution throughout the power grid. A **COMMERCIAL SOLAR ENERGY SYSTEM** shall be a principal use of a property and may occupy the same property as another principal use. A **COMMERCIAL SOLAR ENERGY SYSTEM** is commonly known as a Solar Farm.

MAXIMUM TILT. The maximum angle or the most vertical position of a solar array as compared to the horizon line.

MINIMUM TILT. The minimum or most horizontal angle of a solar array as compared to the horizon line.

PHOTOVOLTAIC DEVICE. A system of components that generates electric energy from incident sunlight by means of the photovoltaic effect, regardless of whether the device can store the electric energy produced for later use.

PROJECT BOUNDARY: The boundary of the project as defined for the special land use permit application.

SOLAR ARRAY. Any number of Photovoltaic Devices connected to provide a single output of electric energy or other energy.

SOLAR ENERGY SYSTEM (SES). Any equipment necessary to the process by which solar radiation is collected, converted into another form of energy, stored, protected from unnecessary dissipation and distributed. **SOLAR ENERGY SYSTEMS** consist primarily of solar thermal, photovoltaic and concentrated solar but may include other various experimental solar technologies. The area includes all land, facilities, and equipment inside of the perimeter fencing and landscaping buffer.

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

153.219 SPECIAL LAND USE STANDARDS

(AA) Commercial solar energy systems (SES) (commonly known as a solar farm). To promote the use of solar energy within the township as a clean alternative energy source and to provide for the land development, installation and construction regulations for commercial SES facilities subject to reasonable condition that will protect the public health, safety and welfare. The regulations established herein are minimum requirements and standards for the placement, construction and modification of commercial SES facilities, while promoting a renewable energy source for our community in a safe, effective and efficient manner.

- 1) Escrow and Fee. An escrow account in the form of a cash deposit of not less than \$15,000 or such other amount estimated by the Township Board, shall be set up when the Applicant applies for a Special Use Permit. The deposit shall be sufficient

to cover all reasonable costs and expenses associated with the Special Land Use zoning review and approval process, which costs can include, but are not limited to, fees of the Township Attorney, Township Planner, and Township Engineer, as well as any reports or studies which the Township anticipates it may have done related to the zoning review process for the particular application. 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 Township escrow should the existing escrow amount filed by the Applicant prove insufficient. If the escrow account needs replenishing and the Applicant refuses to do so within 14 days after receiving notice, the zoning review and approval process shall cease until and unless the Applicant makes the required escrow deposit. Any escrow amounts which are in excess of actual costs shall be returned to the Applicant within 90 days of permitting process completion. The Township may hire qualified professionals for each and any of the technical fields associated with the Special Use Permit, such as, but not limited to, engineering, electrical, environmental, economic, wildlife, health, and land-use.

2) Applicant Identification.

(a) Applicant name and address in full, a statement that the applicant is the owner involved or is acting on the owner's behalf, and any additional contact information as necessary.

(b) Each application for a solar energy system shall also be dated to indicate the date the application is submitted to Montrose Township.

(c) The applicant, operator, and/or owner is required to place an identification placard on site of the SES with their company name, address, a contact name, and a contact phone number for the life of the project.

3) Commercial solar energy systems shall be limited and subject to obtaining a special land use permit from the Planning Commission in AG, RF, C-2, I-1, and I-2 zoning districts.

4) Freestanding or ground-mounted solar energy systems shall be restricted to a height of 14 feet at maximum tilt.

5) All solar energy systems shall have the following setbacks. See Diagram 1 for subsections a – c. Setback distances shall be from the adjacent lot line or road right-of-way line to the proposed perimeter fencing around the solar energy system.

(a) Front Yard and/or Road right-of-way: 200 feet

(b) Side Yard: 50 feet

(c) Rear Yard 50 feet

(d) Dwelling Unit: 500 feet from the closest side and rear walls of a dwelling unit on an adjoining property.

1. No solar energy system shall be placed between the closest point of a dwelling unit and the road right-of-way line on the same lot as the dwelling unit and the adjacent lots extending the width of the setback area defined above in subsection (6)(d), see Diagram 2.

(e) Internal Property Lines: A SES is not subject to property line setback requirements for common property lines of two or more participating parcels, except road right-of-way setbacks shall apply.

Diagram 1

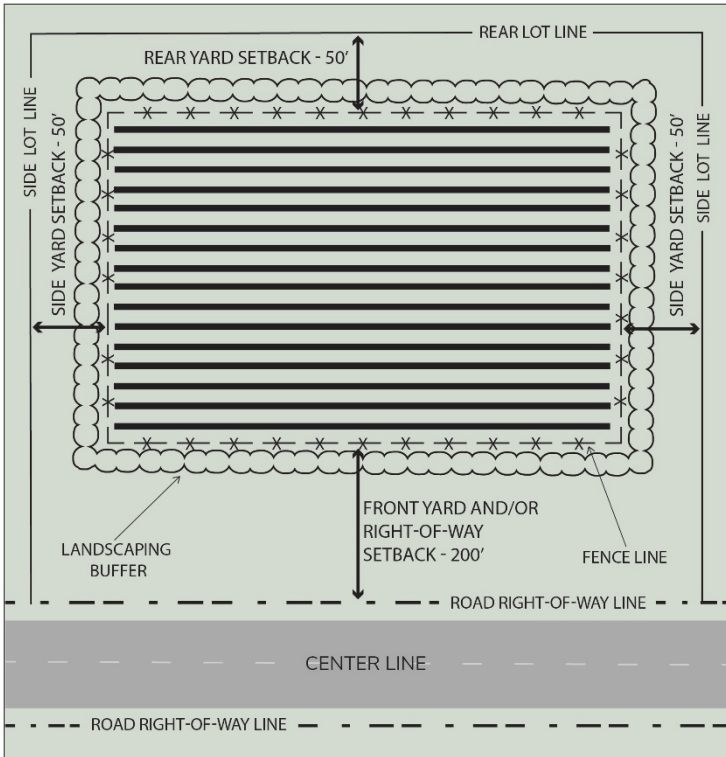
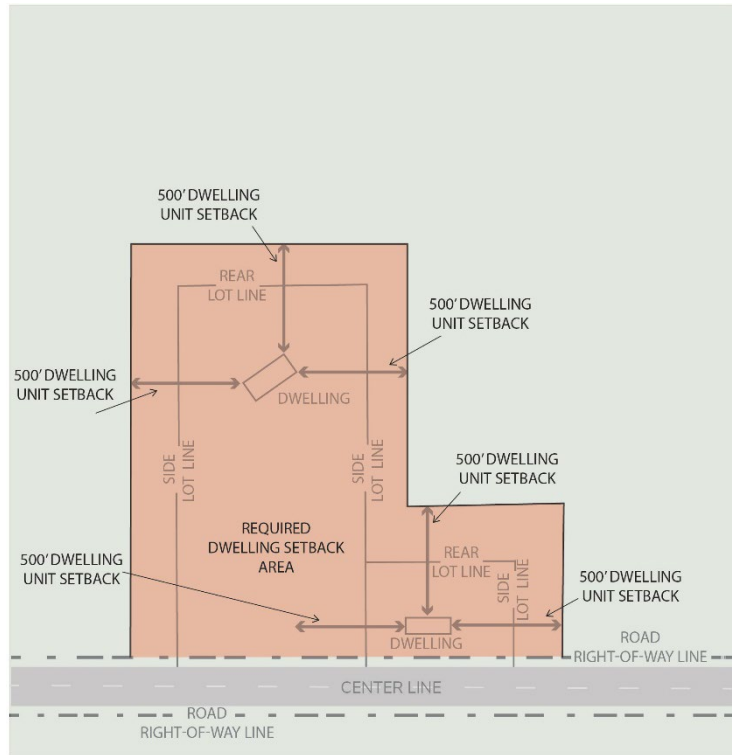


Diagram 2



6) Commercial solar energy systems are not subject to any maximum lot coverage restrictions, however any other regulated structures located on the parcel are subject to the maximum lot coverage restrictions for the zoning district in which it is located.

(a) Additional Site Plan Requirements. The applicant shall submit a site plan in full compliance with Sections 153.230 – 153.236 of this zoning ordinance for each solar energy system and other solar energy appurtenances. Additional requirements for a solar energy system site plan are as follows:

1. The project area boundaries.
2. The location, height, and dimensions of all proposed structures and fencing.

3. The location, grades, and dimensions of all temporary and permanent on-site and access roads from the nearest county or state-maintained road.
 4. Existing topography.
 5. Water bodies, waterways, wetlands, drainage channels, and drain easements.
 6. A site grading, erosion control and storm water drainage plan. The plans will be reviewed by the Township's engineering firm at the applicant's cost.
 7. Proposed setbacks to all existing structures adjacent to the solar energy system.
 8. All new infrastructure, both above and below ground, related to the project. This includes inverters and batteries.
 9. Identification and site plan of a construction/set-up/laydown area.
 10. Landscape/Screening Plan detailing all proposed changes to the landscape of the site, including temporary or permanent roads or driveways, grading, vegetation clearing, and planting.
- 7) Signage and Security.
- (a) A security fence shall be placed around the perimeter of a commercial solar energy system and the electrical equipment shall be locked. The fence shall be located between the solar array and the landscaping buffer. The fence shall meet the minimum requirements of the National Electrical Code requirements. If deemed appropriate, the Planning Commission can require specific fencing as needed. Knox boxes and keys shall be located at locked entrances, not on the fence for emergency personnel access.
 - (b) The manufacturers or installer's identification and appropriate warning sign shall be posted on or near the panels in a clearly visible manner; furthermore, an information sign shall be posted and maintained at the entrance(s), which shall list the name and phone number of the operator.
 - (c) No portion of the solar energy system shall contain or be used to display advertising. The manufacturers' name and equipment information or dedication of ownership shall be allowed on any equipment of the solar energy system.
- 8) Noise. Commercial solar energy system facilities shall not exceed 40 dBA Leq (1-hour) measured at the project boundary. As part of the application, and prior to installation, the applicant shall provide noise modeling study and analysis that will demonstrate the solar energy system will not exceed the maximum permitted noise levels. Site plans shall include modeled sound isolines extending from the sound source to the property line to demonstrate compliance with this standard. Post construction, the applicant and/or owner will conduct sound monitoring to ensure the project complies with the zoning ordinance standards.

9) Landscaping.

- (a) Land clearing of natural vegetation shall be limited to that which is necessary for the construction, operation, and maintenance of the solar energy system per practices of best management of natural areas or good husbandry of the land or forest other prescribed by applicable laws, regulations, and bylaws.
- (b) Landscaping shall consist of a minimum twenty (20) foot wide vegetated greenbelt around the entire perimeter of the facility. Such greenbelt shall be adjacent to and outside of any perimeter fencing associated with the facility. Landscaping within the greenbelt shall consist of seventy (70) percent evergreen trees and thirty (30) percent deciduous trees of a minimum of six (6) feet in height at the time of planting. All plantings shall be native species. All trees shall be planted a minimum of ten (10) feet on center and have a minimum projected height of twenty (20) feet. Existing vegetation within the greenbelt may be used as a substitute for the required plantings, upon approval of the Planning Commission. A landscape berm, a minimum of three (3) feet high to assist in screening may be required. The requirement of providing a berm will be recommended and approved by the Planning Commission.
- (c) Each owner/operator of a solar energy system shall utilize good husbandry techniques with respect to said vegetation, including but not limited to, proper pruning, proper fertilizer, and proper mulching, so that 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. Plants or grasses not part of landscaping shall be maintained by the facility operator not to exceed twelve inches in height.
- (d) Applicant must provide a detailed landscape maintenance plan for the proposed solar energy system and surrounding area. The plan shall include a ground cover and vegetation establishment and management plan and include provisions that will be employed to maintain and promote native vegetation while minimizing the proliferation of weeds during and following construction.
- (e) The Planning Commission may alter the landscaping requirement depending upon the location of existing plant material on site.

10) Local, state and federal permits. Solar energy system facilities shall be required to obtain all applicable Federal, State, and local laws, regulations, and ordinances including compliance with the following:

- (a) Farmland and Open Space Preservation Program (Part 361 of the Natural Resources and Environmental Protection Act, Public Act 451 of 1994 as amended, more commonly known as PA 116), and with applicable parts of the Michigan Natural Resources and Environmental Protection Act (Act 451 of 1994, MCL 324.101 et seq.) including but not limited to Part 31 Water Resources Protection (MCL 324.3101 et seq.), Part 91 Soil Erosion and Sedimentation

Control (MCL 324.9101 et seq.), Part 301 Inland Lakes and Streams (MCL 324.30101 et seq.), and Part 303 Wetlands (MCL 324.30301 et seq.).

(b) The applicant shall be responsible for making repairs to any public roads, drains and infrastructure damaged by the construction or operation of the solar energy system. The applicant/owner will be required to enter into a road use agreement and/or drain use agreement with the County Road Commission or Drain Commission for post-construction repairs, if required by these agencies.

(c) Copies of all such permits and approvals that have been obtained or applied for at the time of the application.

11) Electrical interconnections. All electrical interconnection or distribution lines shall comply with all applicable codes and standard commercial large-scale utility requirements. Use of above ground transmission lines shall be prohibited within the site, unless waived by the Planning Commission during its review and approval of the project.

12) Additional special land use criteria. The following additional topics shall be included in a review of a site plan and special use permit application for a commercial SES facility in addition to the general standards listed in § 153.218:

(a) Project description and rationale. Provide a general description of the proposal including:

1. A legal description and parcel identification numbers of the of the property of properties on which the project will be located.
2. Location and height of all proposed above-ground structures and utilities associated with the SES, including horizontal and vertical-scaled drawings with dimensions that show the location of the of the proposed SES facility.
3. A description of the proposed technology to include the type of solar panels and system, number of panels, angles of orientation, rated power output, performance, safety, and the name and address of the of the manufacturer and model.
4. Identify the anticipated construction schedule, project life, development phases, likely markets for the generated energy, and possible future expansions;

(d) Analysis of onsite traffic and a plan that identifies the routes intended for use in connection with the development, construction, operation, and maintenance of the SES;

(e) Estimated construction jobs, estimated permanent jobs associated with the development;

(f) Review and demonstrate the visual impact of the proposed project from a minimum of 5 viewpoints at the time of commercial operation, projected after

five years and ten years post construction. The visual simulations shall use photos or renditions of the project with consideration given to tree plantings and setback requirements.

- (g) Review and demonstrate any potential impact on wildlife on the site.
- (h) Identify any impact on the water quality and water supply in the area, any storm water discharge concerns from the property, and any dust concerns generated from project activities during construction and for the life of the project.
- (i) Identify any solid waste or hazardous waste generated by the project.

13) Lighting and Glare.

- (a) Provide lighting plans showing all lighting within the facility. No light may adversely affect adjacent parcels. All lighting must be shielded from adjoining parcels, and light poles are restricted to 18 feet in height.
- (b) All solar energy systems shall be placed such that solar glare does not project onto nearby inhabited structures or roadways and be considered a nuisance.
- (c) Solar facilities should be sited and designed properly to eliminate glint and glare effects on roadway users, nearby residences, commercial areas, or other highly sensitive viewing locations, or to reduce them to the lowest achievable levels. The applicant will provide a glint and glare study which accurately assesses and quantifies potential glint and glare effects and to determine the potential health, safety, and visual impacts associated with proposed project.
- (d) The design and construction of solar energy facilities shall not produce light emissions, either direct or indirect (reflective), that would interfere with airline pilot vision and/or traffic control operations.
- (e) If the design of the project produces light or glare on neighboring homes or businesses, the owner shall mitigate that glare by curtailment.

14) Provide site access plan during construction and operation phases. Show proposed project service road ingress and egress access onto primary and secondary routes, layout of the plant service road system. Due to infrequent access to such facilities after construction is completed, it is not required to pave or curb access drives. It will be necessary to pave any driveway and parking lots used for occupied offices that are located on site.

15) Identify emergency and normal shutdown procedures. Identify potential hazards to adjacent properties, public roadways, and to the community in general that may be created.

17) Identify any electromagnetic fields and communications interference generated by the project.

18) Maintenance Plan. The Applicant shall submit a maintenance plan that describes the following:

- (a) Explains routine maintenance to solar panels and facility.
- (b) Demonstrates the SES will be designed, constructed, and operated to minimize dust generation, including the provision of sufficient watering of excavated or graded soil during construction to prevent excessive dust.
- (c) States the manner in which unpaved access roads will be treated and maintained, either with a dust palliative or graveled or treated by another approved dust control method to prevent excessive dust.
- (d) Provisions that will be employed to maintain and promote native vegetation while minimizing the proliferation of weeds during and following construction. A record of mowing and the height of vegetation/ grass following each cutting shall be recorded in the maintenance log described below.
- (e) If a SES is not maintained in operational and reasonable condition or poses a potential safety hazard, the owner shall take expeditious action to correct the situation, including SES removal, as necessary.
- (f) The owner shall keep a maintenance log on each SES and must provide a complete log to the Township annually within thirty (30) days of request.

19) Insurance. Proof of the applicant's public liability insurance with a rated carrier of at least \$3,000,000 per occurrence to cover the solar energy system, the Township, and the landowner. Applicant shall provide yearly proof of insurance to Township that confirms active coverage for the Applicant and Township.

20) Emergency Services.

- (a) The solar energy system owner or operator shall provide a copy of the project summary, electrical schematic, and as-built site plan to the local fire chief. The owner or operator shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the solar photovoltaic installation shall be clearly marked.
- (b) The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.

21) Complaint Resolution.

- (a) The applicant shall develop a process to resolve complaints from nearby residents concerning the construction or operation of the project. All complaints shall be acknowledged within 10 days of receipt of such complaint and the Township supervisor shall also be notified of each complaint. The process may use an independent mediator or arbitrator and shall include a time limit for acting on a complaint. The process shall not preclude the local government from acting on a complaint.

- (b) During construction, the applicant shall maintain and make available to nearby residents a telephone number where a project representative can be reached during normal business hours.
- (c) A report of all complaints and resolutions to complaints shall be filed with the township on a quarterly basis.

22) Transfer of Sale. Prior to a change in the ownership or operation of a Large Solar Energy System the current owner or operator shall provide written notice to the Township at least thirty (30) days prior to that change becoming effective. This notice shall inform the Township of the intended transfer of control of the Large Solar Energy System and shall include a copy of the instrument or agreement effecting that transfer. Such an instrument or agreement shall include an express statement that the new owner or operator of the Large Solar energy system shall not be permitted to operate that System until compliance with the terms of this ordinance.

- (a) Upon transfer or sale, the financial security for decommissioning shall be maintained at all times, the estimated costs of decommissioning shall be resubmitted, and the security adjusted to account for the new estimate.

23) Abandonment and Decommissioning.

- (a) Abandonment:

For the life of the project, the owner/operator will provide quarterly up-dates on current operations and energy production to the Township Board or their designee on the status of the solar energy system.

A solar energy system that ceases to produce energy on a continuous basis for 6 months will be considered abandoned, unless the current responsible party (or parties) with ownership interest in the solar energy system provides substantial evidence prior to the 6-month expiration period that they intend to maintain and reinstate the operation of the facility. If the responsible party does not provide an update on the solar energy project until after the 6-month time limit of no energy production, the responsible party shall pay a fine according to the fee schedule set by the Township Board and provide a letter with satisfactory explanation and request for reinstatement of the project to the Township Board. Should the above provisions not be adhered to the project will be considered abandoned. It shall be the responsibility of the responsible party (or parties) to remove all equipment and facilities and completely restore the project area to its condition prior to the development of the solar energy system.

1. Upon determination of abandonment, the Building Official shall notify the party (or parties) responsible that they must remove the solar energy system and restore the site to its condition prior to development of the solar energy system within one year of notice by the Township Board or its designee.

2. If the responsible party (or parties) fails to comply, the Township Board or its designee may remove the solar energy system, sell any removed materials, and initiate judicial proceedings or take any other steps legally authorized against the responsible parties to recover the costs required to remove the solar energy system and restore the site to a nonhazardous predevelopment condition.
- (b) Decommissioning: A decommissioning plan signed by the party responsible for decommissioning and the landowner addressing the following shall be submitted prior to the issuance of the zoning permit, which shall include:
1. The anticipated life of the project;
 2. The estimated decommissioning costs in current dollars (salvage costs cannot be considered in the estimated decommissioning costs). The estimate shall be prepared by the engineer for the developer and shall be approved by the Township.
 3. The method of ensuring that funds will be available for decommissioning and restoration, to include but not limited to:
 4. Complete removal of all non-utility owned equipment, conduit, structures, fencing, roads, solar panels and foundations, and
 5. Complete restoration of property to condition prior to development of the solar energy system.
 6. The anticipated manner in which the project will be decommissioned and the site restored.
 - i. Decommissioning shall include the removal of each PV Panel, all electrical components, and all facilities associated with the solar energy system.
 - ii. All access roads to the solar energy system shall be removed, cleared, and graded by the facility owner, unless the property owner requests, in writing, a desire to maintain the access road. The Township will not be assumed to take ownership of any access road and such remaining roads will not be considered public roads.
 - iii. The site and any disturbed earth shall be stabilized, graded, and cleared of any debris by the owner of the solar energy system or its assigns. If the site is not to be used for agricultural purposes following removal, the site shall be seeded to prevent soil erosion, and restored to its condition existing prior to any construction activities..
 7. A provision to give notice to the Township one year in advance of decommissioning.

8. A financial instrument to assure payment of the cost of decommissioning shall be required. To ensure proper removal of the structure when it ceases to be used for a period of 6 months or more, any application for a new solar energy system shall include a description of the financial security guaranteeing removal of the solar energy system which will be posted at the time of receiving a zoning permit for the facility. The security shall be a: 1) cash; 2) irrevocable bank letter of credit; or 3) performance bond in a form approved by the Township. The amount of such guarantee shall be no less than the estimated cost of removal and shall include a provision for inflationary cost adjustments every 5 years.
9. A condition of the financial instrument shall be notification by the company to the Township Supervisor thirty (30) days prior to its expiration or termination. When determining the amount of such required security, the Township shall also require future meetings every 5 years, to establish corrected values for decommissioning. The financial security instrument shall be adjusted to each determined corrected value.
10. Decommissioning shall be complete, and the ground shall be restored to its previous condition, within one year from the date of abandonment; which may be extended by one additional year by the Building Official.

24) Repowering.

- (a) If at the end of the lease period, or the useful life of the SES, the applicant/owner decides to retrofit or repower the installation by reconfiguring, renovating, or replacing the existing components,
- (b) The Applicant/Owner shall provide the Planning Commission a proposal to change the project. It shall be considered a new application, subject to the ordinance standards at the time of the request.
- (c) The Applicant/Owner would not need to apply for a new permit if they are performing routine maintenance, as described in the provided maintenance plan.

25) Continuing Compliance and Enforcement Escrow Deposit. A continuing escrow deposit shall be held by the Township and shall be funded by a cash deposit by the applicant prior to the commencement of construction of any solar energy facility and shall be maintained by the owner or operator until the solar energy facility has been permanently decommissioned and removed. The monetary amount placed by the applicant in escrow with the Township shall be a minimum of \$20,000 and shall cover all reasonable costs and expenses associated with continuing enforcement of this Ordinance and the terms of the special use permit, which costs can include, but are not limited to, reasonable fees for the Township Attorney, Township Planner and Township Engineer, as well as costs for any reports or studies that the Township determines are reasonably related to enforcement of the Ordinance and the special use permit. If the Township is required to expend any portion of the

escrow deposit or if the existing escrow amount paid by the applicant proves to be insufficient to cover the Township's enforcement costs, the Township may require the applicant to place additional monies into escrow with the Township.