

TOOL D: SAMPLE ZONING LANGUAGE

The character of zoning ordinances varies among jurisdictions. The text below is based on several, primarily Michigan based, existing solar ordinances, and provides local governments with sample language that each jurisdiction can customize to suit local needs. *Please consult your local legal counsel for advice on the appropriateness and applicability to your jurisdiction's zoning ordinance.*

As a guideline, the different scale of solar collection devices would be suitable for the following:

- Attached: All zoning districts
- Small Freestanding: Medium to low-density districts
- Large Freestanding: Industrial and possibly Agriculture

PURPOSE

The purpose of this ordinance is to add provisions to the Zoning Ordinance to address the permitting of small, medium, and large solar energy systems. The Ordinance recognizes the potential need for solar energy systems, while also supporting agricultural and habitat conservation. These changes are also necessary and appropriate to improve and enhance public welfare and safety, and to implement the Master Plan.

SAMPLE DEFINITIONS

GENERAL DEFINITION

Solar Collection Devices–General: Solar collection devices are designed to capture and utilize the energy of the sun to generate electrical power. A solar collection device is the actual material(s) used to collect solar rays and all associated ancillary and structural devices needed to support and convert/transmit the energy collected. These devices may be either freestanding or attached to a structure and are sized to meet the various user needs and/or utility requirements.

SMALL

Solar Collection Devices–Attached: An array of solar collection materials secured to the exterior walls or roof of a principal or accessory building and generate up to but not exceeding the manufacturer's rating of 20kW.

Solar Collection Devices–Small Freestanding: An array of freestanding (not attached to a principal or accessory structure) solar collection materials that generate up to but do not exceed the manufacturer's rating of 20kW.

MEDIUM

Solar Collection Devices – Medium Freestanding: An array of freestanding (not attached to a principal or accessory structure) solar collection materials that exceed the manufacturer’s rating of 20kW, but do not occupy more than 10 acres of land.

Large Solar Collection Devices – Large Freestanding: An array of freestanding (not attached to a principal or accessory structure) of utility-scale solar collection materials that exceed the manufacturer’s rating of 20kW and occupy more than 10 acres of land.

SAMPLE GENERAL REGULATIONS

Abandonment: Any **Freestanding** solar collection site or device which is not used for six (6) months shall be deemed to be abandoned. The applicant/permit holder will be so notified in writing by the municipality and requested to dismantle the site and return it to its original state. If there are mitigating circumstances as to why the site has not been used, the applicant/permit holder may contact the municipality and request a three-month extension. If a site has been deemed abandoned and no request for an extension is received, the applicant/permit holder will again be notified to dismantle the site and return it to its original state. If the applicant/permit holder does not do this, the municipality will have the removal and restoration done at the owner/applicant’s expense (note that this last provision in particular should be reviewed by local legal counsel). Removal shall include removing posts, equipment, panels, foundations and other items so that the ground is restored to its preconstruction state and is ready for development as another land use.

Agricultural Land Preservation: Freestanding solar devices proposed in agricultural and open space zones are encouraged to locate on predominantly (more than 60 percent) non-prime farmlands. If they do not meet this standard, the use shall be deemed a Special Land Use, which requires a public hearing. The Application for a Special Land Use permit shall include an analysis of the potential for agricultural use on the subject site by expert in agriculture or soil science, as determined by the Planning Commission.

Height: Attached solar panels or Building Integrated Photovoltaics installed on a sloped roof of a building shall not project vertically above the peak of the roof. Solar panels attached to a flat roof shall not project vertically more than 10 feet above the roof. Solar panels attached to the side of a structure shall not project vertically above the building height allowed for that zoning district.

Small Freestanding solar devices, where the solar panels are attached to the ground by a pole, metal frame or other similar support structure, shall comply with existing regulations for accessory structures but in no instance shall the panels exceed twenty (20) feet in height in residential zones.

Medium and Large Freestanding solar devices shall meet the height limit requirements for the zone in which they are located.

Impervious Surface/Stormwater: If more than 8,000 square feet of impervious surface will be located on the site, the application shall include a drainage plan prepared by a registered civil engineer showing how stormwater runoff will be managed and demonstrating that runoff from the site will not exceed the agricultural runoff rate or otherwise cause undue flooding. If detergents will be used to clean solar panels, details on the type of detergent, frequency and quantity of use, and stormwater quality protection measures shall be provided. Any necessary permits from outside agencies for off-site discharge shall be provided.

Inspection: The municipality shall have the right, upon issuing the required permit for an **Attached** or Building Integrated solar system, to inspect the premises on which the solar collection devices are located at all reasonable hours.

The municipality shall have the right upon issuing the required permits to inspect the premises on which a **Freestanding** solar collection device is located at all reasonable times. The municipality, within its reasonable discretion, may retain the services of a recognized professional in the area of solar conversion systems to assist and/or advise it in the review of the application or site if deemed necessary. The expense thereof shall be the responsibility of the applicant/permit holder. The Planning Commission or Council/Board may request the applicant to post a deposit or secure a bond for such contingency.

Reflection/Glare: Attached, Building Integrated or Freestanding solar collection devices, or combination of devices, are 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 20% of the incident sun intensity. Plans to reduce glare may be required in the initial materials submitted.

Responsibilities/Permits: Attached solar collection devices must be installed in compliance with the electrical code adopted by the local jurisdiction and the manufacturer's specifications. A copy of the manufacturer's installation instructions must be submitted to the local jurisdiction. If the applicant's intent is to install a customer-owner system that will be interconnected to the power grid, written evidence that the area's electrical utility provider has been notified will be required. Off-grid systems are exempt from this requirement.

Freestanding solar collection devices require a site plan to be secured for each site requested and should contain the following specific information in addition to all general information required: exact placement of the collection devices on the property; height, length, and angle of collection devices, lot size, zoned district setback requirements, detailed description of all land/timber clearing that is proposed; percent of prime farmland being used; site access roads for development and service; and provisions for mitigating reflection/glare and details on site security. The height of the solar collection device must not exceed the height allowed for accessory buildings in the zoned district where the collection devices are located.

Screening: Screening capable of providing year round screening for **Freestanding** devices, is provided along the back of the panel of the solar collection device or collection of devices.

Small Freestanding solar devices shall be screened from view from any public street, residential district, or agricultural district by use of a masonry screen wall, evergreen vegetation or other screening of a similar effectiveness and quality, as determined by the Planning Commission.

Setbacks: Freestanding solar devices shall meet the front, rear, and side yard setback requirements for the zone in which they are located, with the following exception: In all zones abutting a residential district (including Agriculture Zones) or residential use, the setbacks shall be at least 50 feet from all property lines adjoining said district(s) or use.