

SOLAR ENERGY SYSTEMS REPORT

Regulations pertaining to solar energy systems are contained within Section 135-313 of the Mount Joy Township Zoning Ordinance. Staff has analyzed the existing regulations. For the purpose of this evaluation, staff compared the existing regulations to a variety of related available sources in order to determine any possible additional needs or adjustments. The following is a summary of some important regulatory aspects along with findings and recommendations.

DEFINITIONS

SOLAR ENERGY SYSTEM

Solar energy systems shall include solar panels, collection devices, storage facilities, and distribution components, use for electricity production, water heating and space heating and cooling.

LARGE-SCALE SOLAR ENERGY SYSTEM

A large-scale solar energy system shall be any ground-mounted solar energy system that *covers one acre of ground or more*. In order to determine the ground space of a solar energy system, one should place the smallest box possible around the solar energy system so it contains the solar energy system in its entirety.

ZONING DISTRICTS

The right to install a solar system varies depending on the zoning district where the project is located and on its scope (whether or not the system is considered, by definition, large-scale).

- **Solar Energy Systems** (systems less than one acre) are permitted as:
Accessory use in all districts.
- **Large-Scale Solar Energy Systems** are permitted as:
Accessory use by Special Exception to a non-residential principal use in all districts but R1, R2, R3 (the residential districts).
Principal use by Special Exception in the GI (General Industrial) and LI (Light Industrial) districts.

REGULATIONS

MAXIMUM HEIGHT- the maximum height is appropriate as written.

- ***Recommendation: Retain as written.***

SETBACKS - the current setbacks are appropriate as written.

- ***Recommendation: Retain as written.***

SCREENING - although screening has its benefits, it can adversely affect the performance of panels, including some equipment that may have functions that are related to important safety operations.

- The screening is currently limited to facilities and equipment which are to be contained within a 6ft. fence or evergreen screening.
- ***Recommendation: Wording could be enhanced by specifically stating that Solar Energy Systems are exempt from screening requirements but that all equipment must be screened (as noted above).***

IMPERVIOUS COVERAGE- Ground-mounted solar panels are not counted as impervious as long as there is vegetation on the ground under the panel and the applicant demonstrates that stormwater will infiltrate at the same rate as before.

Most industry recommendations suggest that ground mounted solar panels should not be considered impervious coverage.

- ***Recommendation: Wording is adequate as written but could be further enhanced by simply stating that ground mounted solar panels are not considered to be impervious coverage.***

GLARE- this refers to the reflection of sunlight off panels and into nearby areas. The current wording states that “Solar panels shall be placed such that concentrated solar radiation or glare shall not be directed onto nearby properties or roadways.”

Some ordinances require the use of non-reflective finishes on panels. Ordinances may also require glare studies.

- ***Recommendation:***
 - 1. The current wording is okay, but the word “structures” could be added following the word “nearby” such as: “nearby structures, properties or roadways.”***
 - 2. Non-reflective surfaces could be required.***
 - 3. A glare study could be required.***

DECOMMISSIONING- The ordinance is currently written as follows:

“The large-scale solar energy system owner is required to notify the Township immediately upon cessation or abandonment of the operation. The large-scale solar energy system owner shall then have 12 months in which to dismantle and remove the large solar energy production facility from the property. At the time of issuance of the permit for the construction of the large-scale solar energy system, the owner or operator of the large-scale solar energy system shall provide financial security, in form and amount acceptable to the Township, to secure the expense of dismantling and removing said structures.”

- ***Recommendation: The existing wording could be improved upon by adding some specifics relating to decommissioning all related facilities, equipment, roads, etc.***