

## Section 719.154 – Small Solar Energy Systems

Small solar energy systems may be installed and operated in all districts, provided the systems meet setback and other standards, as provided in this section:

- A. Small solar energy systems may be approved through the issuance of a Building Permit provided the application meets setback and other standards, as provided in this Section, and provided solar panels are roof-mounted. If the Building Official has a good faith belief that the solar energy system could have a specific, adverse impact upon the public health and safety, the Official may require the applicant to apply for a Site Plan approval to the Planning Commission.
- B. All ground-mounted solar panels require approval by the Planning Commission. Groundmounted solar panels are not permitted on residential lots less than one-quarter acre in size or in the RH Residential High Density (Multiple Family) district.
- C. Approval by the Planning Commission is required for all small solar energy systems that do not meet A and B above.
- D. The requirement for a complete, professionally-prepared site plan shall not apply to applications proposing 1) only roof mounted solar panels or 2) proposing ground mounted panels that do not exceed 8,000 square feet in total area in non-residential districts, 400 square feet in area on residential lots between one quarter acre and two acres in size, or 1,000 square feet in area on residential lots larger than two acres. When a full site plan is not required, a sketch plan shall be submitted. A sketch plan, drawn to scale, shall show existing and proposed structures, driveways, adjacent structures within 100 feet, and any other information requested by the Planning Commission that is necessary to determine compliance with this ordinance.
- E. Roof-mounted photovoltaic solar energy systems, including solar water or swimming pool heating systems, may extend up to five (5) feet above the roof surface even if this exceeds the maximum height limit for the principal structure for the district in which it is located, or if this exceeds the height limit of an accessory structure, subject to the following:
  - 1. Solar panels may not be cantilevered beyond the ridge of a pitched roof.
  - 2. The total area of solar panels may not exceed the total area of the roof. Where panels are mounted on one slope of a pitched roof, their total area may not exceed the total area of that slope.

3. Roof-mounted solar panels placed on a residential structure must be parallel to the surface of the roof.
- F. Excluding solar collection panels, solar energy system equipment may be installed within the required side and rear yard, but shall not be closer than five (5) feet to any property line.
  - G. Ground-mounted solar collection panels, 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, and must meet a rear yard setback of five (5) feet. Any mechanical equipment used as part of the solar system 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.
  - H. Solar panels shall be placed such that concentrated solar radiation or solar glare shall not be directed onto nearby properties or roadways. Traffic safety shall be protected, and adjacent properties shall be protected from unreasonable glare and radiation. The applicant shall submit documentation to verify compliance with this section. When deemed appropriate, the Planning Commission may require a report from a registered civil engineer or other professional the Planning Commission finds to be qualified to address this issue.
  - I. 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. Necessary permits from outside agencies for off-site discharge shall be provided.
  - J. If the solar energy system ceases to operate or is abandoned for a period of six months or is deemed by the Building Official to be unsafe or not consistent with code, the Applicant shall repair and restore the system to good working order within a reasonable time set by the Building Official or, if no longer operating or no longer in compliance with federal, state or local codes, it shall remove the system in its entirety. This 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.

- K. When a ground-mounted solar panel(s) is located adjacent to a residential or agricultural district (i.e., properties zoned AG, R, RM, MH, or REC) or public right-of-way, a 26-foot wide (minimum) greenbelt shall be constructed to provide a buffer between the panels and the adjacent residential/agricultural or public property. The Planning Commission may waive or reduce the greenbelt requirement upon a determination that the solar panels are located more than 200 feet from an adjacent property zoned residential or agricultural or from any public right-of-way. The Planning Commission may waive or reduce the greenbelt requirement if the adjacent residential or agricultural property is likely to remain undeveloped, or existing natural features will remain to provide adequate screening. Greenbelts shall be planted as part of an approved site plan and shall thereafter be maintained in a healthy, growing condition to give a screen to abutting properties. Specific planting requirements for greenbelts are as follows:
1. The planting strip shall be no less than twenty-six (26) feet in width.
  2. Plant materials shall not be placed closer than four (4) feet from the property line.
  3. A minimum of one (1) evergreen tree shall be planted at twenty (20) foot intervals (on average).
  4. A minimum of three (3) intermediate shrubs shall be placed between the spaced evergreen trees.