## 17.80.200 SOLAR ENERGY COLLECTION SYSTEMS.

The intent of this section is to facilitate the use of solar energy in all zoning districts, and to establish performance standards that preserve neighborhood character and mitigate potential impacts to surrounding property. This section is not intended to protect or guarantee a property owner's access to sunlight.

For the purposes of this chapter the term solar energy collection systems (SECS) will apply to thin photovoltaic cells, solar energy conversion systems and other solar apparatus that collect sunlight energy to generate electricity, to heat or cool a structure, or to heat a water source.

- **A.** All SECS shall comply with the City of Shawnee's adopted codes, and permits shall be obtained prior to installation.
- **B.** Primary use of any SECS in residential or agricultural zoning districts shall be for power, heat, or cooling systems within the principal (or accessory) structure. Incidental selling of power back to the electric grid from a SECS shall not constitute a commercial use.
- **C.** Installation of SECS on a sloped roof. SECS mounted on the front (street) side of a sloped roof shall be mounted parallel with the roof plane and shall not extend more than thirty (30) inches out from the roof plane. SECS mounted on the back side of a sloped roof can be of tilt-up design, but shall not extend more than forty-eight (48) inches above the roof plane. In no case shall an SECS extend above the roof peak.
- **D.** Installation of SECS on a flat roof. When SECS are located on a flat roof with no parapet wall, the collector panels shall be mounted parallel with the roof so their view is minimized. SECS collector panels may be located anywhere on flat roofs with adequate parapet height to screen the view of said collector panels from adjacent streets. Tilt-up design collector panels are allowed on flat roofs with parapet walls, but the collector panel shall not extend above the top of the parapet wall.
- **E.** Within commercial and industrial zoning districts, SECS may be mounted on the side and/or back wall of a building provided Site Plan approval is granted by the Planning Commission. Wall-mounted solar collector panels may not extend more than forty-eight (48) inches beyond the wall plane, and shall encroach no more than forty-eight (48) inches into any required side or rear yard area. Collector panels shall not extend above the wall on which they are mounted.
- **F.** Ground-mounted SECS in residential and agricultural zoning districts. Ground-mounted SECS shall be located in the rear yard and shall be setback a minimum of ten(10) feet from any side or rear property line. Ground-mounted SECS shall not exceed six (6) feet in height from finished grade. For residential lots less than one acre in size, the surface area of the ground-mounted SECS shall not exceed two (2) percent coverage of total lot area, with a maximum coverage of two hundred (200) square feet. For

residential lots one acre or larger in size, the surface area of the ground-mounted SECS shall not exceed two (2) percent coverage of the total lot area, with a maximum lot coverage of one thousand two hundred (1,200) square feet. All utility lines service the SECS shall be placed underground. Ground-mounted SECS are exempt from accessory structure provisions found in SMC 17.60.

- **G.** Ground-mounted SECS in commercial and industrial zoning districts shall require Site Plan approval by the Planning Commission, and shall be accessory to the principal building use. SECS in commercial and industrial areas shall meet the bulk setback requirements of said zoning district. Height and surface area of grounded-mounted SECS in commercial and industrial areas shall be as approved by the Planning Commission. The Planning Commission may require fences, landscaping and/or berms to screen ground-mounted SECS from adjacent streets. All related utility lines shall be placed underground.
- **H.** SECS may be attached to parking lot light poles to provide electricity for the fixture. The SECS may be of tilt design, but in no case shall the SECS extend more than three (3) feet above the top of the light fixture. Solar collector panels on light poles shall be painted to match the color of the light pole and fixture.