

## **CHAPTER 24. SOLAR POWER PLANTS**

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#### 9-24-1: Purpose.

The purpose of this chapter is to establish minimum requirements and regulations for the placement, construction and modification of solar power plants, as defined herein, while promoting the safe, effective and efficient use of such energy systems.

#### 9-24-2: Definitions.

“Concentrating solar thermal devices” are systems that use lenses or mirrors and tracking systems to focus a large area of sunlight into a small beam. The concentrated light is then used as a heat source for a conventional power plant. Although, wide ranges of concentrating technologies exist, the most developed are the solar trough, parabolic dish and solar power tower.

“Photovoltaic’s” or “PV” is a technology that converts light directly into electricity.

“Solar power plant” means a utility-scale commercial facility that uses solar energy, specifically for the conversion of sunlight into electricity by photovoltaic, concentrating solar thermal devices or various experimental technologies, for the primary purpose of wholesale or retail sales of generated electricity.

### 9-24-3: Regulations and Design Standards-Solar Plant.

A solar power plant shall comply with the regulations and design standards set forth below:

- 1) Permitted Locations. A solar power plant is not allowed in a Residential Zone.
- 2) Height will be established through the Conditional Use Permit process.
- 3) Setbacks.
  - a. Property Lines. Any facility of a solar power plant shall be set back from the nearest property line, public road right-of-way and tanks containing combustible/flammable liquids not less than 1.5 times the total height of its tallest structure;
  - b. Inhabitable or Public Structures/Other Uses. No solar power plant shall be located within one-half mile of the nearest inhabitable structure (residence), platted subdivision, or public building or gathering place) park, church, hospital, library, school, playground, etc.)
- 4) Safety/Access.
  - a. An appropriate security fence (height and material to be established through the Conditional Use Permit process) shall be placed around the perimeter of the solar power plant and electrical equipment shall be locked;
  - b. Appropriate warning signage shall be placed on towers, electrical equipment and solar power plant entrances.
- 5) Noise. No solar power plant shall exceed sixty –five (65) dBA as measured at the property line or fifty (50) dBA as measured at the nearest neighboring inhabitable building.

- 6) Visual Appearance.
  - a. Solar power plants shall be finished and maintained as manufactured;
  - b. The design of any buildings or related structures shall, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend the facility into the natural setting and existing environment;
  - c. Appropriate landscaping shall be provided to minimize the visual impact of the commercial solar power plant and accessory structures from roads and adjacent residences.
  
- 7) Local, State and Federal Permits. A solar power plant shall be required to obtain all necessary permits from the Utah Department of Environmental Quality, including the Utah Division of Air Quality and the Utah Division of Water Quality, and federal permits along with applicable permits required by Kane County and local utility companies affecting the power grid.
  
- 8) Electrical Interconnections. All electrical interconnection or distribution lines shall comply with all applicable codes and standard commercial large-scale utility requirements. "PV" systems must be approved for interconnection by the serving utility before operations can begin.

9-24-4: Provisions for Conditional Use Permit Review.

Following the provisions of Chapter 15, Kane County Code, additional or more thorough consideration shall be given to the following:

- 1) Site and development plans (drawn to scale; locating all structures existing and proposed, setbacks, access, project boundary, existing structures outside project boundary within one-half mile of project

boundary, existing utilities/pipelines/transmission lines, proposed utility lines/structures, existing topography);

- 2) Solid waste or hazardous waste generated by the project;
- 3) Lighting and FAA height restrictions;
- 4) Transportation plan for construction and operation phases (showing proposed project service road ingress and egress access onto the state or county road system, layout of the solar power plant service road system and degree of upgrade plan to new and existing roads, anticipated volume and route for traffic, including oversized and heavy equipment needed for construction, maintenance and repairs, methodology of repairs and maintenance of roads and bridges used for the project, and related public pedestrian and vehicular access and associated fencing;
- 5) Public safety (potential hazards to adjacent properties, public roadways, communities, aviation, etc., that may be created);
- 6) Telecommunications interference (electromagnetic fields and communications interference generated by the project);
- 7) Life of the project and final reclamation (describing the decommissioning and final land reclamation plan after anticipated useful life or abandonment or termination of the project, including evidence of an agreement with the property owner that ensure proper final reclamation of the solar power plant project);
- 8) Others, as applicable.

#### 9-24-5: Submission of Application.

Permit Application. Application for a solar power plant shall include the following information:

- 1) Site plan to scale showing location of the proposed solar power plant and the locations of all existing buildings, structures and property lines along with distances, including a drawing depicting the area;
- 2) Elevations of the site to scale showing the height, design and configuration of the solar power plant and the height and distance to all existing structures, buildings, electrical lines and property lines;
- 3) Standard drawings and engineering analysis of the solar power plant feasibility;
- 4) Specific information on the type, size, rated power output, performance, safety and noise characteristics of the system, including the name and address of the manufacturer, model;
- 5) Emergency and normal shutdown procedures.