This Standard is promulgated in accordance with the 2016 California Fire Code (CFC) and Kern County Ordinance and is an official interpretation of the Kern County Fire Marshal’s Office.

SYNOPSIS

This standard uses guidelines from several sources which outline solar panel installation requirements. This standard will be associated with the proper installation of photovoltaic ground mounted and roof mounted solar systems. It will be applied indefinitely and reviewed/revised as part of the new code adoption process or as otherwise necessary.

GROUND MOUNTED REQUIREMENTS (COMMERCIAL DEVELOPMENT)

Water Supply

When required by the fire code official, fire protection water shall be provided for ground-mounted solar systems of one MW or larger. The presence of structures, location in the wildland areas, and the size of the array will determine the amount of fire protection water.

One 10,000 gallon tank with a 4” NSM (National Standard Male) connection will be provided for fire department use. A level indicator shall be attached to the water tank. Tank and outlet location shall be accessible to emergency vehicles, near the entrance, and approved by the Kern County Fire Department.

When a fire water source is available within a reasonable distance, the fire water tank requirement may be waived. This fire water source must have a 4” NSM (National Standard Male) connection. All water sources shall be approved by the Kern County Fire Department.

Clearance/Combustibles

1. A minimum clearance of 10’ is required for all weeds and combustibles around the project perimeter. All vegetation under the array shall be maintained to a height of 6” or less.
2. In SRA and Wildland areas, 30’ of clearance of all combustibles shall be maintained.

Stationary Storage Battery Systems/Energy Storage Systems

Where required, stationary storage battery/energy storage systems used for facility standby power, emergency power or uninterruptible power supplies shall comply with the 2016 California Fire Code (CFC) Chapter 6, Section 608. Separate construction permits are required to install, alter or modify any stationary storage battery system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.
Clean Agent

All clean agent systems, i.e. FM 200, shall comply with the 2016 California Fire Code, Sections 904.10 - 904.10.3 and NFPA 2001. Separate permits are required for each clean agent system.

Fire Extinguisher

One 4A:60B:C fire extinguisher shall be placed in a fire extinguisher box located near the entrance and within 30 feet of the emergency shutoff switch.

Access (All roads to support emergency vehicle loads)

1. A 20’ minimum road width- is required around the perimeter of the entire project for the fire department and emergency vehicles.
2. All internal roads shall be a minimum of 20’ wide.

ROOF MOUNTED SOLAR REQUIREMENTS

Commercial Roof Installations

1. A minimum of 6’ of clearance is required around the perimeter of the roof (Including from all ridge lines).
2. Clearance can be reduced to 4’ if the longest axis of the roof is less than 250’.
3. Pathways shall be a minimum of 4’ from parapets or roof edges.
4. Clearance around hatches shall be a minimum of 4’.
5. Arrays shall be no greater than 150’ x 150’.
6. Perimeter clearance for group U occupancies and shade structures can be reduced to 4’.

Residential Roof Installations

Ensure installation guidelines are followed per Section 605.11 of the California Fire Code & Section 1510.7 of the California Building Code

1. **Pathways to ridge:** A minimum of two 36” wide pathways on separate roof planes, from the lowest roof edge to the ridge, shall be provided. At least one pathway shall be provided on the street or driveway side of the roof. For each roof plane with a photovoltaic array, at least one 36” wide pathway from the lowest roof edge to ridge shall be provided on the same roof plane as the photovoltaic array.
2. **Setbacks at ridge:** For photovoltaic arrays occupying 33% or less of the plan view total roof area, a minimum 18” wide setback is required on both sides of a horizontal ridge. For photovoltaic arrays occupying more than 33% of the plan view total roof area, a minimum 36” setback is required on both sides of a horizontal ridge.