


ALAMEDA FIRE DEPARTMENT

	Subject: Solar Photovoltaic Systems Standard – Residential Only	Standard Number 07-002
	Approved By: Fire Chief David Kapler	Page 1 of 7
	Refer To: Fire Marshal Michael Fisher	Effective Date: March 25, 2010
	Policy Review Date:	Revised Date: March 25, 2010

Fire Prevention Standards

The Alameda Fire Department (AFD) has developed a standard of conditions to ensure firefighter and public safety for all solar Photovoltaic (PV) systems. The AFD appreciates the environmental friendly technologic advances these systems bring. However, traditional firefighting techniques such as roof venting, water extinguishment and fire overhaul will have to be modified to ensure human safety. Roofs that contain solar arrays will be most difficult for firefighters to vent. Delayed roof venting may increase the time factor in fire containment resulting in a greater extent of fire damage overall. Additional roof loading by PV systems may also cause the roof integrity to be compromised sooner during fire conditions. Conventional water extinguishment on roofs with solar PV systems may not be an option for firefighters if the integrity of any portion of the solar array is threatened, as the risk of accidental electrocution is greatly increased. Fire overhaul will also be a challenge for firefighters, as broken panels or compromised solar conduit will remain energized during daylight hours or when illuminated by lights.

The following conditions will apply to all roof and ground mounted solar PV systems:

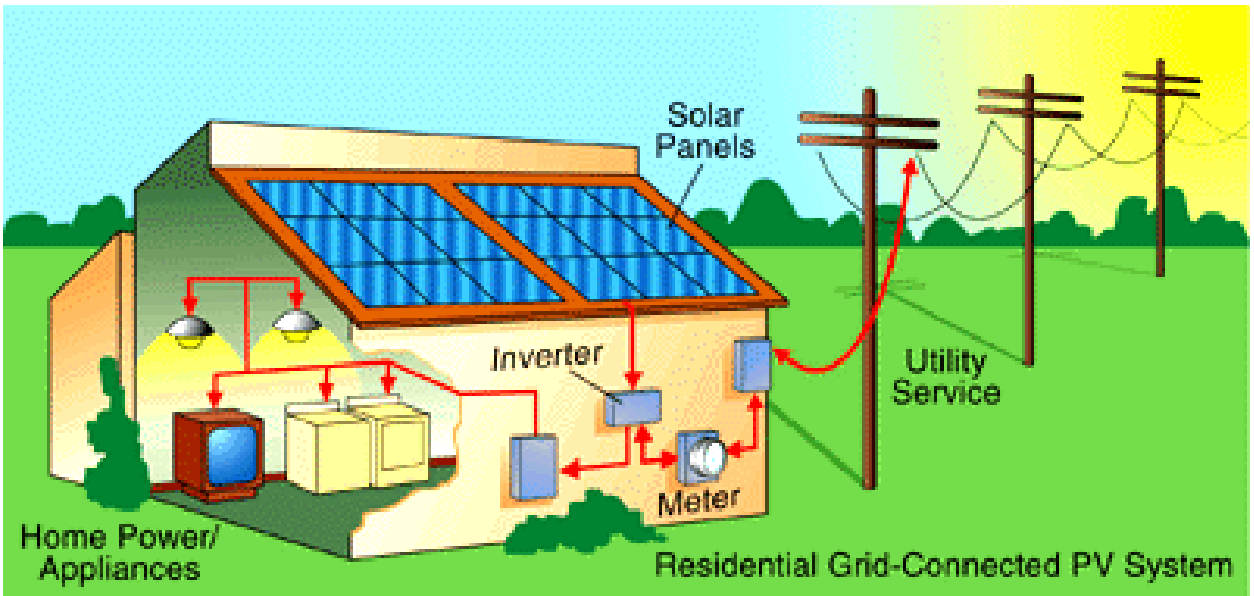
1. There will be a minimum of 36” of walking space around the perimeter of solar arrays installed on roofs.
2. Ground mounted solar arrays will be erected in areas clear of combustible vegetation. A minimum vegetation clearance or mowed perimeter of 10’ shall be maintained.
3. All solar conduits, interior or exterior, will be permanently labeled with fade resistant material as follows: “CAUTION Solar PV Wiring May Remain Energized After Disconnection During Daylight Hours.” (See attached signage requirements.)
4. Battery storage in enclosed rooms to be mounted a minimum of 24” above floor. If contained within cabinet, a permanent placard is to be posted.
5. Permanent placard installed on exterior and interior of main electrical panel stating: “CAUTION Solar PV System Installed. When Power Disconnected, Solar Panels And Wiring May Remain Energized During Daylight Hours.”
6. All disconnects shall be accessible to fire department and located together when possible.
7. The maximum length or width shall not exceed 100 feet.

I have read the above safety concerns involved in the installation of a solar PV system and understand the conditions

Signed by _____

Date _____

Print Name _____



SIGNAGE REQUIREMENTS FOR SOLAR PV SYSTEMS

Two forms of signage are required for solar PV systems. Permanently affixed labels should have a white background with reflective red lettering. Printed material should resist fading. Size of lettering should be equal to the example below.

1. Exterior /Interior Conduit Signage:

To be installed every 20'. For vertical conduit, a minimum of one label to be affixed at eye level.

CAUTION
**Solar PV Wiring May Remain Energized
After Disconnection During Daylight Hours.**

2. Exterior/Interior of Electrical Panel Signage:

CAUTION
**Solar PV System Installed. When Power Disconnected,
Solar Panels And Wiring In Conduit To Inverter May
Remain Energized During Daylight Hours.**