

# LOS ANGELES FIRE DEPARTMENT



## FIRE PREVENTION BUREAU

### SOLAR POWER REQUIREMENTS PHOTOVOLTAIC SYSTEMS

Alternative sources of power are becoming more and more popular. Solar Systems used to produce electricity, in particular, is leading the pack and becoming commonplace throughout the city. The following are some basic guidelines for the use and placement of equipment for these systems.

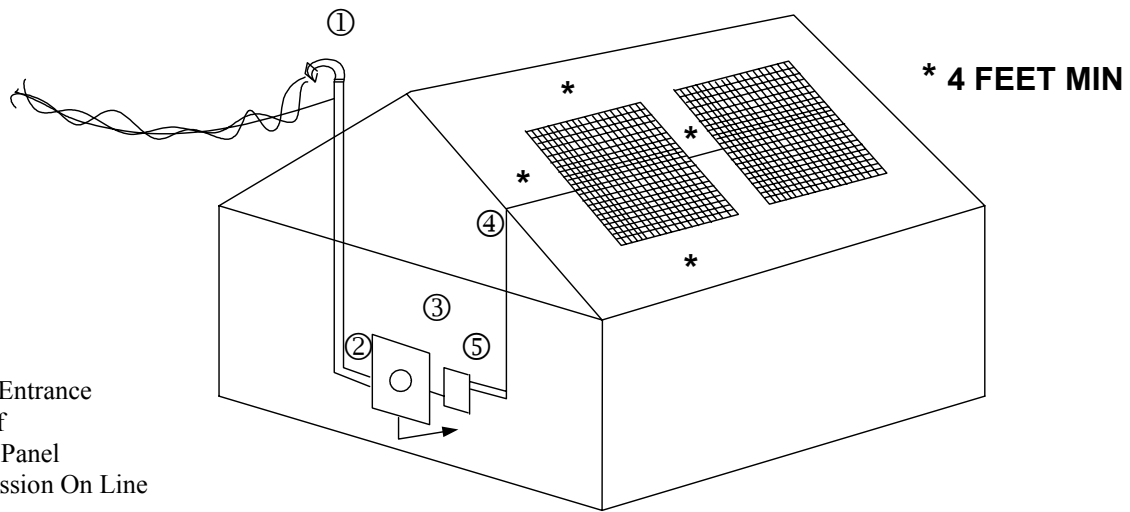
1. Panel clusters shall be limited to a 50' x 50' area and separated by 4'.
2. Placement of panels shall be 4' from the roof's edge, ridge, eaves and parapets walls.
3. Hardware shall be of the quick release type – subject to Fire Department approval.
4. Hazardous transmission lines shall be labeled “CAUTION – Electrical Hazard”  
NOTE: Hazards occur when a demand is placed on the system. The system is passive with no load.
5. Electrical panel shall be labeled “Solar Power Enhanced.”
6. All electrical panel shut-offs shall be designed to shut off all power (Solar and Domestic) after the panel.

NOTE: Shut-offs sometimes can be located on the roof, generally after an array.  
If so, the shut-off shall be labeled.

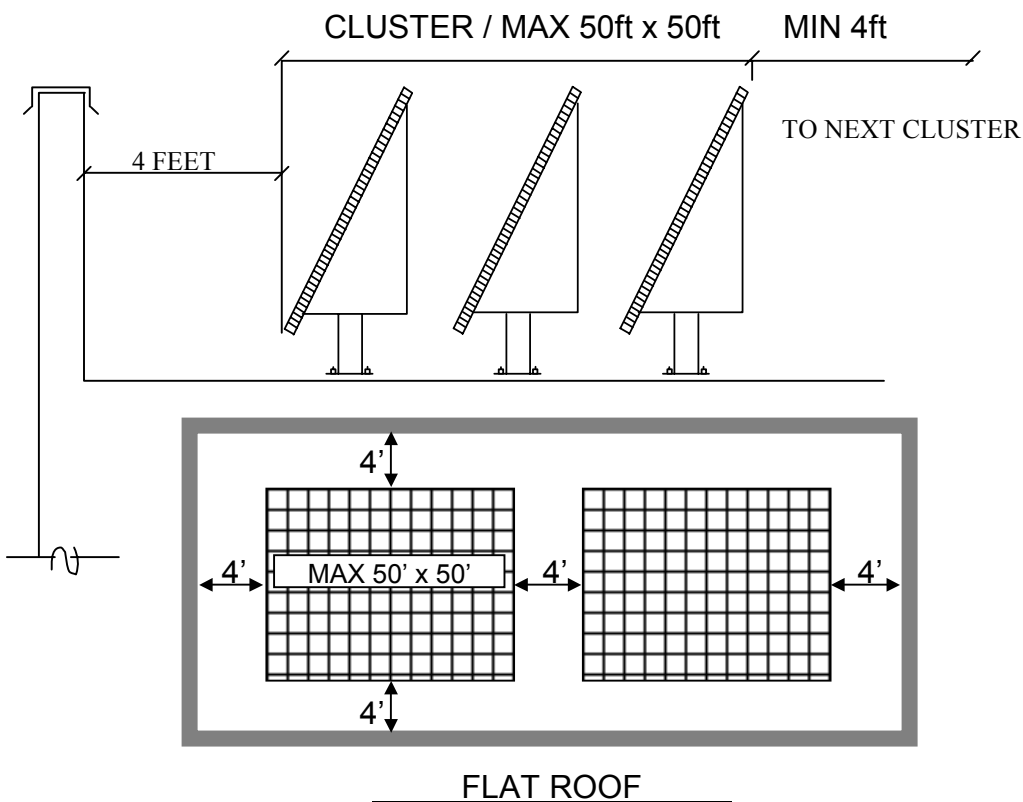
7. All Solar plans shall be reviewed by the Fire Department for:
  1. Signage (on panel and transmission lines)
  2. Placement of equipment
  3. Hardware (Quick Release Connectors)
  4. Equipment type, approvals, etc.
  5. Listings

NOTE:

1. All Solar panel connectors shall be of the quick release type and subject to Fire Department approval.
2. The Electrical Division of the Department of Building and Safety — (Plan Check) will require all solar plans to be routed to the Fire Department (Building Standards Unit.)
3. DWP has signs and labels that can be used with your system. Check with your local DWP office for more information.



1. Service Entrance
2. Shut-Off
3. Electric Panel
4. Transmission On Line
5. Inverter



## **DEFINITION**

1. **INVERTER:** Devices that convert dc electricity (single or multiphase), either for stand-alone systems (not connected to the grid) or for utility-interactive systems.
2. **PHOTOVOLTAIC (PV)** Pertaining to the direct conversion of light into electricity.
3. **ARRAY:** Any number of photovoltaic modules connected together to provide a single electric output. Arrays are often designed to produce significant amounts of electricity.
4. **SUPPORT BRACKET I FRAME:** Used to secure the panel to the roof and other surfaces.
5. **CONNECTORS:** Devices used to hold the panels to the framework or brackets.