

County of San Mateo  
Photovoltaic System Requirements for Expedited Permitting  
2019 California Electrical Code (CEC)

1. Provide Single Line Electrical Drawings: Include wire size/ type with ampacity / derating calculations, conduit size/ fill calculations, photovoltaic calculations, voltage drop calculations. Maximum 600 volts DC for one and two family dwellings, maximum 1000 volts DC for other buildings.
2. Provide type of equipment used and location of all electrical equipment. This should be on site plan. Provide manufacturer's specification sheets for equipment to be used with NRTL Listing mark or provide certificate of NRTL listing.
3. Reference 2019 California Electrical Code, Article 690 on plan sheet notes.
4. Provide legend with Warning Labels per CEC Article 690. Reference via a symbol on the single line where labels will be placed. Use a separate symbol for each label.
5. Provide OCPD rating of Main Disconnect and rating of Service Equipment. Main Disconnect OCPD rating plus Solar Input OCPD rating cannot exceed 120% of service equipment buss rating. 2019 CEC 705.
6. Provide roof attachment details with engineering documentation to support loads. Provide roof flashing with details. For ground mounted or ballasted systems provide details with calculations by a licensed California Engineer.
7. Provide on site plan, location of solar panels and clearances around and to edge of roof and ridge. Show percentage of roof covered if less than 3 feet clearance to ridge. Ground mounted arrays need to be ten feet from combustible vegetation.
8. Comply with County of San Mateo Division VII Building Regulations sec 9263 and 9264
9. Provide manufacturer's listing for solar array racks listed for use with modules being used.
10. Wire, fittings, connectors and equipment must be listed/rated for wet locations. Roof disconnects/boxes must be installed vertical per NEMA 3R, unless listed otherwise by manufacturer.
11. Show on site plan, two roof access points, to ridge for firefighting, with one access on street or driveway side of dwelling.
12. Line side tapping of factory installed service equipment wiring requires the manufacturer's listing for tapping their conductors. Provide manufacturer's specification sheet for listed tapping devices. Service entrance conductors may be line side tapped provided code required bending space is available.
13. Rapid Shut Down required on buildings per 2019 CEC 690.12
14. Downsizing of OCPD to allow for PV at 120% of buss rating requires building load electrical calculations.
15. Provide Warning Placard at main service showing location of all disconnects. Placard shall show location of arrays on roof and location of any other power source disconnects. 2019 CEC Art. 705.10
16. Provide installation instructions at jobsite for inspector. Do not include in plans.
17. 2019 CEC Art. 690.4(C) states, only Qualified Personnel shall perform electrical work. A written statement of qualifications for the person(s) doing electrical work is required if no CSLB Licensed Contractor is shown on application.