### System

New Rooftop Residential Retrofit PV Systems

- Installed by contractor with all licenses required by jurisdiction
- Each residence must have a unique utility meter

### Electrical

Applicable National Electric Code

- 600V Max per DC System Size
- Single phase 240 V only
- No Aluminum Wires
- Must Use 600V rated PV wire (due to outer diameter > 0.24" (6.1mm))
- Must use 90 deg C rated insulated wire
- Max 2 DC strings in parallel
- Max 9 current carrying conductors in a raceway
- Inverter output circuit conductors must be THWN-2 or listed NM
- Terminals must be rated to 75 deg C, labeled for use with Cu wires, and accept minimum 8 AWG wire
- If using microinverter, 1 module per microinverter
- Whenever used, microinverters or AC Modules must be rated for a 20A branch circuit overcurrent device
- Permitted to install on up to or equal to 400A Service
- Permitted to install on up to or equal to 225A Service Disconnect
- Permitted to install on up to or equal to 225A busbars
- No existing PV or ESS
- May install only 1 module type
- May install up to 2 Inverters for String Inverters, up to 1 inverter type for Micro-inverters and AC modules Systems
- Conduit may not be Schedule 80 PVC
- Modules and Inverters must be listed on CEC
- Rapid Shutdown cannot be satisfied using the method: No exposed wiring or conductive parts [690.12(B)(2)(3)]
- No trenching allowed
- All power production inverter outputs have the same point of connection
- All equipment is assumed to be non-continuous rated
- May install only 1 racking system type
- Height of rooftop conduit \( \geq 7/8" \)
- Flat Plate PV Modules Only

### Structural

Detached one- and two-family dwellings and townhomes not more than three stories above grade plane in height with a separate means of egress

- Accessory structures to one- and two-family dwellings and townhomes not more than three stories above grade plane in height
- Penetrations within 4 ft of the fire-rated property line on the roof of a townhome shall not be permitted
- Installations in multi-family structures or R-2 occupancies shall not be permitted
- Installations on mobile homes governed by Heath and Safety Code and/or Housing and Urban Development regulations shall not be permitted.

Applicable International Residential Code

- PV system + hardware weight is less than or equal to 4psf
- No ground mounted systems
- No carports or non-permanent structures
- No modification alterations or upgrades to the structure
- At least 20% of each tilt-up mounted array must be contained under 2 feet above the roof
- Installed on a permitted structure
- No wood shake or wood shingle roofing
- Limit of 10" above the roof for pitched (>2/12) roof systems
- No metal roof or low-slope roof in areas with > 15psf snow load

### Fire

Applicable International Residential Code