

System

New Rooftop Residential Retrofit PV Systems With Energy Storage Systems

Installed by contractor with all licenses required by jurisdiction

Lithium Ion

Each residence must have a unique utility meter

Electrical

Applicable National Electric Code

600V Max per DC System Size

Single phase 240 V only

Aluminum wires are only allowed for Backup Initiation Device feeders

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

Whenever used, the microinverters or AC Modules branch circuit overcurrent protection device must be rated for a maximum of 20A

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

No new loads, only new monitoring loads are allowed

All equipment is assumed to be non-continuous rated

ESS must be paired with new PV at this time

AC Coupled ESS may not be connected in parallel

May install only 1 racking system type

Height of rooftop conduit > = 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 Health 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

ESS Must be less than 400lbs and its center of mass shall be located less than 4ft from the floor in high seismic areas (Seismic Design Category D,E,F)

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

ESS shall not be installed within the habitable space of a dwelling unit.