New Rooftop Residential Retrofit PV Systems With Energy Storage Systems
Installed by contractor with all licenses required by jurisdiction

Lithium Ion

Applicable National Electric Code

600V Max per DC System Size
Single phase 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
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
Single Family Dwelling Only

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
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

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
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

Applicable International Residential Code