



Residential Energy Storage System Permit Application Guidelines

For information on Permit Applications and the County’s InSite Public Portal please use the following link

<http://sccbuilding.org/>

CA Electrical Code

Definition of ESS - Energy Storage System (ESS). *One or more components assembled together capable of storing energy for use at a future time. ESS(s) can include but is not limited to batteries, capacitors, and kinetic energy devices (e.g., flywheels and compressed air). These systems can have ac or dc output for utilization and can include inverters and converters to change stored energy into electrical energy.*

To schedule a Building inspection please use the [Mobile Inspection App](#), [Insite Public Portal](#), or call 408-299-3161 and leave a voicemail

Planning and Development Permit Center

70 W Hedding Street
East Wing, 7th Floor
San Jose, CA 95110
Phone: (408) 299-5770

GENERAL

- Complete a [Development Service Intake Form](#) (permit application)
- Plan review fees are required at the time application and plan submittal
- Permit fees are due after the plans are approved and prior to issuing the permit
- Plans shall be minimum 11"x17"" to maximum 24" x 36"
- Drawings shall be signed by the architect or engineer(s), or by the contractor (electrical C-10) or by the owner who designed and will install the system
- Provide a cover sheet with a description of the project scope, occupancy type, and applicable codes
- Job Address, owner’s name, address, and phone number
- Engineer, contractor, or design professional’s name, phone, address, and license number

ELECTRICAL

- All ESS are required to be listed to UL 9540 CRC R327.2
- Provide a site plan sheet showing the locations of all structures and proposed equipment
- For interior locations provide a detailed layout with required working clearance dimensions CEC 110.26
- Provide a line diagram that shows the premises wiring system (all electrical equipment, types and sizes of raceways and conductors, overcurrent protection device ratings (breakers)
- Provide clear color photos of the main electrical service panel with the dead front cover in place and removed. Include a photo of the (E) service equipment label to show the ampacity rating of the equipment. Provide a spec sheet for new electrical service equipment
- Provide spec sheets for all proposed equipment (installation instructions may be required as needed)

STRUCTURAL

- For equipment with an aggregate weight over 400lbs or equipment over 20lbs with center of mass located 4ft above the floor or grade level provide stamped and signed anchorage and/or attachment details from a licensed Civil/Structural engineer.

FIRE

- ESS Shall be installed in the following locations: (R327.4) Outdoors or on the exterior side of exterior walls located not less than 3 feet from doors and windows directly entering the dwelling unit. Clearly indicate location of doors and windows on the exterior wall where the ESS shall be mounted/installed.
- Individual ESS units shall be separated from each other by at least three feet except where smaller separation distances are documented to be adequate based on large-scale fire testing to UL 9540A.



Fire (continued)

- Individual ESS units shall have a maximum rating of 20 kWh. The aggregate rating of the ESS shall not exceed: 40 kWh within utility closets, basements and storage or utility spaces 80 kWh in attached or detached garages and detached accessory structures 80 kWh on exterior walls 80 kWh outdoors on the ground. If the ESS exceeds the permitted individual or aggregate rating, it shall be installed in accordance with Section 1206.1 through 1206.9 of the California Fire Code. (R327.5)
- ESS installed in a location subject to vehicle damage shall be protected by approved barriers, in accordance with CFC 1206.11.7. Provide calculations to justify the proposed anchorage. Alternatively, a bollard may be provided in accordance with CFC 312.2 and a corresponding detail shall be provided. SCCFD does not accept visual deterrent bollards as vehicle impact protection. An example of an acceptable justification would be calculations showing that the bollard and proposed anchors can withstand an impact in accordance with section 1607.9 of the California Building Code.

Ref SCCFMO standard A-7

https://www.sccfd.org/wp-content/uploads/documents/fire_prevention/standards/SDS_7_ProtectESS_SubVehicleDam_042721.pdf

- Rooms and areas within dwelling units, basements, and attached garages in which ESS are installed shall be protected by smoke alarms in accordance with Section R314. A listed heat detector shall be installed in locations within dwelling units and attached garages where smoke alarms cannot be installed based on their listing. SCCFD acknowledges that there is currently a lack of listed heat alarms for unconditioned spaces as outlined by the Office of the State Fire Marshal Informational Bulletin 21-004. As an alternate, a heat detector powered by a circuit that is integrated with the ESS shall be provided. Activation of the heat detector shall provide audible notification at the sleeping areas. CRC R327.7

NOTE: Dwellings equipped with an NFPA 13 or 13D fire sprinkler system may satisfy the requirement for heat detection and notification.

