



# ENERGY STORAGE SYSTEM (ESS) REQUIREMENTS



COMMUNITY DEVELOPMENT DEPARTMENT • 345 N EL DORADO STREET • STOCKTON, CA 95202 • (209) 937-8561  
[www.stocktonca.gov/buildinginspection](http://www.stocktonca.gov/buildinginspection)

A building permit is required for the installation of Energy Storage Systems (ESS). All ESS must be reviewed for code compliance, method of installation, and electrical safety. To expedite the review and approval of energy storage systems (i.e., backup batteries), refer to the information below to ensure a complete building permit submittal.

## **PERMIT REQUIREMENTS:**

- Permits are issued to a California licensed **C-10** (electrical) contractor with a current City of Stockton Business License. If the ESS will be installed in conjunction with a solar project, the permit may be issued to a California licensed **C-46** (solar) or **B** (general) contractor.
- Permits may be obtained at the Community Development Department Permit Center:
  - Located at 345 N. El Dorado St, Stockton, CA 95202
  - Office hours are from 8:00 a.m. to 4:30 p.m. Monday through Friday, closed alternate Fridays.
- **Residential ESS permits are available to apply, pay, and receive online via our online permit portal at: <https://aca-prod.accela.com/STOCKTON>. On the portal, select “OTC-Electrical” for battery only projects or “OTC-Photovoltaic” if part of a solar project. A free user account must be created to use this service.**
- For expedited review, you may schedule an over-the-counter review appointment with the plan review staff by calling (209) 937-8561. Appointments are usually reserved on Tuesdays for residential projects and Wednesdays for commercial projects, between 8:00-11:00am.

## **SUBMITTAL CHECKLIST:**

- A. [Building Permit Application](#)
- B. Floor Plan / Site Plan / Architectural Plans – Electronic files
- C. Electrical Plans and Load Calcs (see below) – Electronic files
- D. Structural Plans and Calcs (if applicable, see below) – Electronic files
- E. Equipment Manufacturer’s Specifications and Installation Instructions – Electronic files
- F. Authorization Letter from the licensed contractor for the individual picking up the permit (if applicable)

***Electronic files shall be formatted in accordance with our Electronic Plan Check Guide which can be found on our website here: [ELECTRONIC PLAN CHECK GUIDE](#)***

## **GENERAL PLAN REQUIREMENTS:**

- All required plans shall be formatted to a minimum of 11”x17” in size utilizing a minimum 10 point font size.
- Plans must include the following:
  - A complete scope of work on the cover sheet, along with typical cover sheet details such as applicable codes, sheet index, site address, vicinity map, etc.
  - Identify if the system is to be used as a partial home backup or a whole home backup.
  - An elevation drawing of the system equipment in the proposed location.
  - A site plan and floor plan which includes the following:
    - A legend or key of symbols and other callouts used.
    - The location of the structure and the location where the system is to be installed.
    - All equipment that is to be interconnected with the ESS (e.g., utility service, subpanel, PV system, etc.) shall be identified as new or existing equipment.
  - Examples of CEC and jurisdictional required signage.
  - Details to indicate the following code requirements, including the electrical and structural requirements shown below:
    - If the ESS is installed inside of a dwelling, the dwelling must have interconnected smoke detectors. A listed heat detector may be installed if the location prohibits installation of smoke detectors, such as an attached garage (NFPA 855).

- Where an ESS is installed in the normal driving path of vehicle travel within a garage, impact protection complying with CA Fire Code Section 1207.11.7.3 shall be provided. The normal driving path is a space between the garage vehicle opening and the interior face of the back wall to a height of 48 inches (1219 mm) above the finished floor. The width of the normal driving path shall be equal to the width of the garage door opening. Impact protection shall also be provided for ESS installed at either of the following locations (See CFC Figure 1207.11.7.1):
  1. On the interior face of the back wall and located within 36 inches (914 mm) to the left or to the right of the normal driving path.
  2. On the interior face of a side wall and located within 24 inches (609 mm) from the back wall and within 36 inches (914 mm) of the normal driving path.
    - a. Exception: Where the clear height of the vehicle garage opening is 7 feet 6 inches (2286 mm) or less, ESS installed not less than 36 inches (914 mm) above finished floor are not subject to vehicle impact protection requirements.
- ESS shall be installed in accordance with the manufacturer's installation instructions. ESS must be UL 9540 listed.

### **ELECTRICAL REQUIREMENTS:**

- Show required (indoor/outdoor) working clearances for existing/new electrical equipment.
- Show conduit/cable routing of the ESS, PV, and related circuits.
- Show method and location of required ventilation equipment (if required) for indoor installations. (CEC 110.13(B))
- Show trench or overhead runs, as applicable, and denote whether conductors are routed indoors or outdoors.
- Show location and/or method of rapid shutdown initiation of the ESS, when integrated with a PV system (CEC 690.12) and the point of interconnection between the ESS and other power production sources. Disconnects are required within 5' of the main service panel or if structural conditions exist may be within 10' of the main service panel and within sight. Permanent plaque or directory denoting location is required.
- Provide documentation from a National Recognized Testing Laboratory (NRTL) showing that the ESS is listed as a multi-mode inverter per UL 1741. (CEC 705.4)
- Add a note that plug-in type back-fed circuit breakers connected to an interconnected supply shall be secured in accordance with (CEC 408.36(D)).
- Provide a permanent plaque or directory denoting all electric power sources on or in the premises, which shall be installed at the main service panel and at all locations of all electric power production sources capable of being interconnected. (CEC 705.10)
- Demonstrate unobstructed access on the plans to all required disconnects or as determined by the City of Stockton Fire Department.
- Provide a complete single-line diagram for the system. Include information for:
  - All new circuits, including: conductor/conduit size/type and number of conductors.
  - Grounding and bonding or method of interconnection
  - Overcurrent protection method and rating
  - All disconnecting means
  - Ratings (voltage, ampacity, environmental, etc.) for new and existing service equipment
- Electrical calculations shall be part of the submittal and should include the following:
  - Sizing of new conductors (voltage, ampacity, environmental, etc.)
  - Overcurrent protection ratings
  - Load calculation per CEC articles 220 and 705 for new backup load centers and generation panels respectively. Include panel schedules as part of load calculations.

### **STRUCTURAL REQUIREMENTS:**

- Identify if the ESS will be wall- or floor-mounted and provide attachment details.
- If several ESSs are floor-mounted and their weight is equivalent to 400 lbs. (or more), you must provide structural details in the drawings and structural calculations as a separate document. (CBC 1603.1.8)
- ESSs mounted in a vehicular pathway must be protected from physical damage. (CFC 1207.4.5 / CRC R328.8)