



# RESIDENTIAL ENERGY STORAGE SYSTEM

## BUILDING DIVISION

### Spacing, Location & Energy Rating

- Spacing between individual units not less than 3 feet is required. Clearances MAY be reduced based on large scale fire test, with findings and recommendations accepted by the Fire Marshal.
- (CRC R327.3.1 and UL 9540(A)).
- ESS shall be installed only in the following locations (CFC 1206.11.3 and CRC R327.4):
  - Detached garages and detached accessory structures.
  - Attached garages separated from the dwelling unit living space in accordance with Section R302.6.
  - Outdoors or on the exterior side of exterior walls located not less than 3 feet (914 mm) from doors and windows directly entering the dwelling unit.
  - Enclosed utility closets, basements, storage, or utility spaces within dwelling units with finished or noncombustible walls and ceilings. Walls and ceilings of unfinished wood-framed construction shall be provided with not less than 5/8" Type X gypsum wallboard.
  - ESS shall not be installed in sleeping rooms, closets, spaces opening directly into sleeping rooms or in habitable spaces of dwelling units.
- Energy ratings of Individual ESS units shall be a maximum of 20 kWh. The aggregate rating of the ESS shall not exceed the requirements for the individual locations referenced in CRC 327.5. The maximum allowable per structure is 280 kWh.

### Working Spaces About Electrical Equipment (CEC 110.26)

- Minimum 36 inches in depth, 30 inches in width, and 6 feet-6 inches in height.
- Vegetation, including trees, which impact working clearances, shall be relocated.

### Signs and Labels Table

Labels shall be phenolic where exposed to sunlight. Labels required on conduit shall be permanent, weather resistant, and suitable for the environment. Labels shall be red background with white lettering.



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The following labels must be provided:

| CEC Article (s)                        | Location of Label  | Label Verbiage   |
|--|--|--|
| 690.55                                 | When System is DC-Coupled  | INDICATE THE POLARITY WHERE CONNECTED TO ENERGY STORAGE SYSTEMS  |
| 705.12(B)(2)(3)(b)<br>706.15(C) [2022] | Power Source Back Fed Output Breaker<br>AKA: Inverter Output Breaker   | <b>WARNING:</b><br>POWER SOURCE OUTPUT CONNECTION DO NOT RELOCATE THIS OVERCURRENT DEVICE  |
| 705.12(B)(2)(3)(c)                     | Interactive System Point of Interconnection<br><br><u><b>Informational Note:</b></u><br>Install this signage only if the interconnection is directly tapped into the busbar. | <b>WARNING:</b><br>DUAL POWER SOURCE<br>SECOND SOURCE IS PV SYSTEM<br><br><b>WARNING:</b><br>THIS EQUIPMENT FED BY MULTIPLE SOURCES TOTAL RATING OF ALL OVERCURRENT DEVICES EXCLUDING MAIN SUPPLY OVERCURRENT DEVICE SHALL NOT EXCEED AMPACITY OF BUSBAR |
| 690.31(G)(3)<br>690.31(G)(4)           | DC Conduits, Raceways, Enclosures<br><br><u><b>Informational Notes:</b></u><br>1. Mark Every 10', At Turns, Above/Below Penetrations<br>2. 3/8" Minimum Text Size            | <b>WARNING:</b><br>ALTERNATE POWER SOURCE  |
|  | Electric Service<br><br><u><b>Informational Note:</b></u><br>Only install if a de-rated main breaker is installed.   | "MAXIMUM MAIN BREAKER SIZE: XXX AMPS"  |



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## Residential energy storage system

### Vehicular protection example

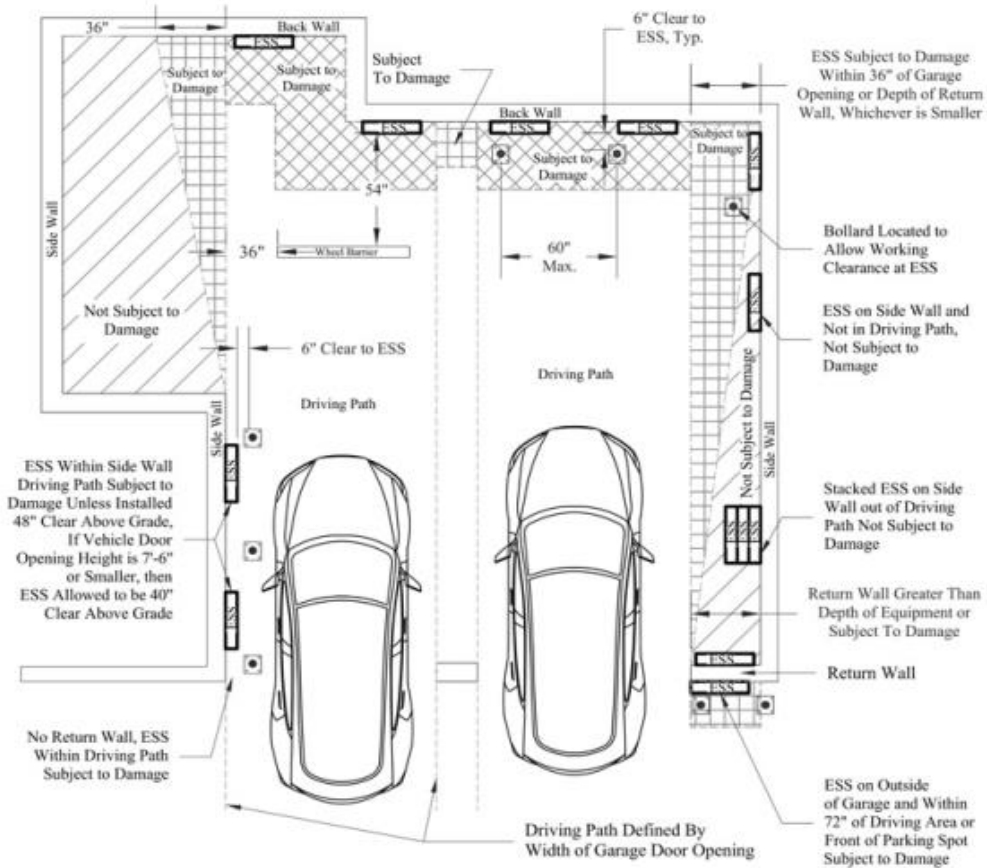


Image Courtesy of: Cahill Power Systems

