

exterior use, and extending 15 ft (1.5 m) above and extending 15 ft (1.5 m) beyond the physical boundary of the pile is provided to protect the exposure.

## Chapter 15 One- and Two-Family Dwellings and Townhouse Units

**15.1\* General.** ESS installations associated with one- or two-family dwellings or townhouse units shall comply with the requirements of this chapter.

### 15.2 Equipment Listings.

**15.2.1** ESS 1 kWh or greater in maximum stored energy shall be listed and labeled in accordance with UL 9540.

**15.2.2** ESS listed and labeled solely for utility or commercial use shall not be used for residential applications.

**15.3 Installation.** ESS shall be installed in accordance with the manufacturer's instructions and their listing.

### 15.4 Commissioning.

**15.4.1** ESS installed in one- and two-family dwellings and townhouse units shall be commissioned as follows:

- (1) Verify that the system is installed in accordance with the approved plans and manufacturer's instructions and is operating properly
- (2) Provide a copy of the manufacturer's installation, operation, and maintenance instructions provided with the listed system
- (3) Provide training on the proper operation and maintenance of the system to the system owner
- (4) Provide a label on the installed system containing the contact information for the qualified maintenance and service providers

**15.4.2** Where the system is installed in a one- or two-family dwelling or townhouse unit that is owned by the builder and has yet to be sold, commissioning shall be conducted as outlined in Section 15.4, and the builder shall then transfer the required information in Section 15.4 to the home owner when the property is sold.

**15.5 ESS Spacing.** Individual ESS units shall be separated from each other by a minimum of 3 ft (914 mm) unless smaller separation distances are documented to be adequate as approved by the AHJ, based on large-scale fire testing complying with 4.1.5.

Previous

### 15.6 Location.

**15.6.1** ESS shall only be installed in the following locations:

- (1) In attached garages separated from the dwelling unit living area and sleeping units in accordance with the local building code
- (2) In detached garages and detached accessory structures
- (3) Outdoors on exterior walls or on the ground located a minimum of 3 ft (914 mm) from doors and windows
- (4) In enclosed utility closets and storage or utility spaces

**15.6.1.1** If the room or space where the ESS is to be installed is not finished, the walls and ceiling of the room or space shall be protected with not less than  $\frac{5}{8}$  in. Type X gypsum board.

**15.6.2** ESS shall not be installed in living area of dwelling units or in sleeping units other than within utility closets and storage or utility spaces.

**15.7 Energy Ratings.** Individual ESS units shall have a maximum stored energy of 20 kWh.

**15.7.1** The aggregate rating amount within a dwelling, garage, or accessory structure shall not exceed the following:

- (1) 40 kWh within utility closets and storage or utility spaces
- (2) 80 kWh in attached or detached garages and detached accessory structures
- (3) 80 kWh on exterior walls
- (4) 80 kWh in outdoor installations

**15.7.2** ESS installations with an aggregate energy rating exceeding that allowed by 15.6.1 shall comply with Chapters 4 through 9.

**15.7.3\*** The use of an electric-powered vehicle to power the dwelling while parked shall comply with Section 15.13.

**15.8 Electrical Installation.** ESS shall be installed in accordance with *NFPA 70*.

**15.8.1** Inverters shall be listed and labeled in accordance with UL 1741 or provided as part of the UL 9540 listing.

**15.8.2** Systems connected to the utility grid shall use inverters listed for utility interaction.

### 15.9 Fire Detection.

**15.9.1** Interconnected smoke alarms shall be installed throughout the dwelling, including in rooms, attached garages, and areas in which ESS are installed in compliance with local building code.

**15.9.2** Where ESS are installed in an attached garage or an area in which smoke alarms cannot be installed in accordance with their listing, an interconnected listed heat alarm shall be installed and be connected to the smoke alarm system required by the local building code.

**15.10 Protection from Impact.** Stationary storage battery systems installed in a location subject to vehicle damage shall be protected by approved barriers.

**15.11 Exhaust Ventilation.** Indoor installations of ESS that include batteries that produce hydrogen or other flammable gases during charging shall meet the exhaust ventilation requirements in accordance with Section 4.9.

**15.12 Toxic and Highly Toxic Gas.** ESS that have the potential to release toxic or highly toxic gas during charging, discharging, and normal use conditions shall be installed outdoors.

### 15.13 Electric Vehicle Use.

**15.13.1** The temporary use of the dwelling unit owner's or occupant's electric-powered vehicle to power the dwelling while parked in an attached or detached garage or outside shall comply with the vehicle manufacturer's instructions and *NFPA 70*.

**15.13.2** The temporary use of the dwelling unit owner's or occupant's electric-powered vehicle to power the dwelling while parked in an attached or detached garage or outside shall not exceed 30 days.