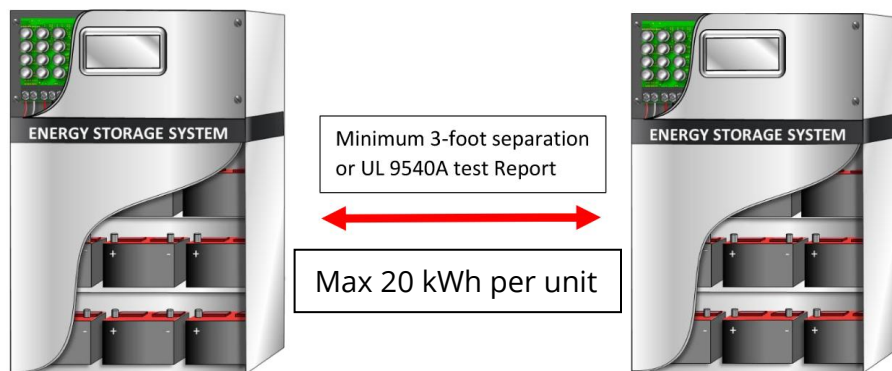


Stationary Energy Storage Systems (ESS) Requirements

This tip sheet reflects code requirements for the installation of energy storage systems, also could be known as a power wall or battery storage systems, under the 2021 International Residential Code R328 with Washington State Amendments and NFPA 855 Standard.

- Shall be listed and labeled in accordance with UL 9540.
- Shall be installed in accordance with the manufacturer's instructions and their listing.
- Shall be separated from each other by not less than 3 feet. Except where smaller separation distances are documented based on UL 9540A Test Report.
- Shall only be installed in the following locations: (R328.4)
 - Detached garages and detached accessory structures
 - Attached garages separated from the dwelling unit living space (R302.6)
 - Outdoors or on the exterior side of exterior walls located not less than three feet from doors and windows
 - 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 require 5/8-inch Type X wallboard. (R328.4)
- Prohibited from installation within sleeping rooms, or closets or spaces opening directly into sleeping rooms. (R328.4)
- Rooms and areas within dwelling units, basements and attached garages shall be protected by smoke alarms (IRC 314). A heat detector, listed and interconnected to the smoke alarms, shall be installed in locations within dwelling units and attached garages where smoke alarms cannot be installed based on their listing.



- Individual units shall have a maximum rating of 20 kWh. (R328.5)
- Aggregate rating shall not exceed 40/80 kWh depending on location*.
- Except where larger kWh ratings are documented based on UL 9540A Test Report.



* 20 kWh max per unit, 40 kWh max. aggregate within uninhabitable utility closets, basements and storage or utility spaces.

* 20 kWh max per unit, 80 kWh max. aggregate in attached or detached garages and detached accessory structures; on exterior walls; or outdoors on the ground.

Reference 2021 Residential ESS Requirements document from UL LLC