WAC 51-54A-0605 Electrical equipment, wiring and hazards.

605.11 Solar photovoltaic power systems. Installation, modification, or alteration of solar photovoltaic power systems shall comply with this section. Due to the emerging technologies in the solar photovoltaic industry, it is understood fire code officials may need to amend prescriptive requirements of this section to meet the requirements for firefighter access and product installations. Section 104.9 Alternative materials and methods of this code shall be considered when approving the installation of solar photovoltaic power systems. Solar photovoltaic power systems shall be installed in accordance with Sections 605.11.1 through 605.11.2, the International Building Code and chapter 19.28 RCW.

605.11.1 Roof access points. Roof access points shall be located in areas that do not require the placement of ground ladders over openings such as windows or doors, and located at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires or signs.

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605.11.1.2 Solar photovoltaic systems for Group R-3 residential and buildings built under the International Residential Code. Solar photovoltaic systems for Group R-3 residential and buildings built under the International Residential Code shall comply with Sections 605.11.2.1 through 605.11.2.5.

EXCEPTIONS:
1. Residential dwellings with an approved automatic fire sprinkler system installed.
2. Residential dwellings with approved mechanical or passive ventilation systems.
3. Where the fire code official determines that the slope of the roof is too steep for emergency access.
4. Where the fire code official determines that vertical ventilation tactics will not be utilized.
5. These requirements shall not apply to roofs where the total combined area of the solar array does not exceed thirty-three percent as measured in plan view of the total roof area of the structure, where the solar array will measure 1,000 sq. ft. or less in area, and where a minimum eighteen inches unobstructed pathway shall be maintained along each side of any horizontal ridge.

605.11.1.2.1 Size of solar photovoltaic array.
1. Each photovoltaic array shall be limited to 150 feet (45,720 mm) by 150 feet (45,720 mm). Multiple arrays shall be separated by a 3-foot wide (914 mm) clear access pathway.
2. Panels/modules shall be located up to the roof ridge where an alternative ventilation method approved by the fire code official has determined vertical ventilation techniques will not be employed.

605.11.1.2.5 Allowance for smoke ventilation operations. Panels and modules installed on Group R-3 residential and buildings built under the International Residential Code shall be located not less than 18 inches (457 mm) from the ridge in order to allow for fire department smoke ventilation operations.

EXCEPTION: Panels and modules shall be permitted to be located up to the roof ridge where an alternative ventilation method approved by the fire chief has been provided or where the fire chief has determined vertical ventilation techniques will not be employed.

605.11.2 Ground-mounted photovoltaic arrays. Ground-mounted photovoltaic arrays shall comply with Section 605.11 and this section. Setback requirements shall not apply to ground-mounted, free-standing photovoltaic arrays.