



STATE OF WASHINGTON
STATE BUILDING CODE COUNCIL

APPENDIX U

SOLAR-READY PROVISIONS – DETACHED ONE-AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES)

(The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.)

SECTION U101

SCOPE

U101.1 General. These provisions shall be applicable for new construction where solar-ready provisions are required.

SECTION U102

GENERAL DEFINITIONS

[W]SOLAR-READY ZONE. A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar ~~((thermal))~~ water heating system.

SECTION U103

SOLAR-READY ZONE

[W]U103.1 General. New detached one- and two-family dwellings, and multiple single-family dwellings (townhouses) with not less than 600 square feet (55.74 m²) of roof area oriented between ~~((+10))~~ 90 degrees and 270 degrees of true north shall comply with sections U103.2 through ~~((U103.8))~~ U103.10.

Exceptions:

1. New residential buildings with a permanently installed on-site renewable energy system.
2. A building ~~((with a solar ready zone that is shaded))~~ where all areas of the roof that would otherwise meet the requirements of Section U103 are in full or partial shade for more than 70 percent of daylight hours annually.

U103.2 Construction document requirements for solar-ready zone. Construction documents shall indicate the solar-ready zone.

[W]U103.3 Solar-ready zone area. The total *solar-ready zone* area shall be not less than 300 square feet (27.87 m²) exclusive of mandatory access or set back areas as required by this code ~~((the International Fire Code))~~. New multiple single-family dwellings (townhouses) three stories or less in height above grade plane and with a total floor area less than or equal to 2,000 square feet (185.8 m²) per dwelling shall have a *solar-ready zone* area of not less than 150 square feet (13.94 m²). The *solar-ready zone* shall be composed of areas not less than 5 feet (1.52 m²) in width and not less than 80 square feet (7.44 m²) exclusive of access or set back areas as required by this code or the applicable provisions of the International Fire Code. No portion of the solar zone shall be located on a roof slope greater than 2:12 that faces within 45 degrees of true north.

U103.4 Obstructions. *Solar-ready zones* shall be free from obstructions, including but not limited to vents, *chimneys*, and roof-mounted equipment.

[W]U103.5 Shading. The solar-ready zone shall be set back from any existing or new permanently affixed object on the building or site that is located south, east, or west of the solar zone a distance at least two times the object's height above the nearest point on the roof surface. Such objects include but are not limited to taller portions of the building itself, parapets, chimneys, antennas, signage, rooftop equipment, trees and roof plantings.

[W]U103.6 Capped roof penetration sleeve. A capped roof penetration sleeve shall be provided adjacent to the solar zone when the solar-ready zone has a roof slope of 2:12 or less. The capped roof penetration sleeve shall be sized to accommodate the future photovoltaic system conduit but shall have an inside diameter of not less than 1 ¼ inches.

U103.57 Roof load documentation. The structural design loads for roof dead load and roof live load shall be clearly indicated on the construction documents.

U103.68 Interconnection pathway. Construction documents shall indicate pathways for routing of conduit or plumbing from the *solar-ready zone* to the electrical service panel or service hot water system.

[W]U103.79 Electrical service reserved space. The main electrical service or feeder panel for each dwelling shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled “For Future Solar Electric”. The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.

U103.810 Construction documentation certificate. A permanent certificate, indicating the *solar-ready zone* and other requirements of this section, shall be posted near the electrical distribution panel, water heater or other conspicuous location by the builder or registered design professional.