

# Solar-ready provisions



Beginning January 1, 2023, **new** construction of...

- Single family homes
- Duplexes
- Townhouses

...will need to be designed and built with solar-ready provisions.

*NOTE: multifamily buildings 4 or more stories high will be required to comply with other solar-ready requirements—see King County Commercial Energy Code Section 411.*

Each **new** home with at least 600 square feet of roof area oriented between 90° and 270° of true north must include a “**solar-ready zone**” and comply with solar-ready provisions.

General **exceptions** to solar-ready provisions:

1. If the permit includes on-site solar system installation, or other approved on-site renewable energy systems installation.
2. If the applicant can demonstrate the roof area would be in full or partial shade during at least 70% of daylight hours.

Where required, the **solar-ready zone** must be:

- 300 square feet (minimum) for single family homes and duplexes.
- 150 square feet (minimum) for townhouses that are less than 2,000 square feet
- Not less than 5 feet wide.
- Free from obstructions including, but not limited to, vents, chimneys, and roof-mounted equipment.
- Set back from any (existing or new) permanently affixed object on the building or site that is to the south, east, or west of the solar zone, by 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, trees, and roof plantings.
- Provided with a capped roof penetration sleeve with minimum diameter of 1-1/4” *if the roof slope of the zone is 2:12 or less.*

Also, the **solar-ready zone**:

- May contain one or more areas, each of which must be at least 80 square feet.
- Cannot be on a roof slope greater than 2:12 if the roof faces within 45° of true north.

# Solar-ready provisions, continued

## Plan checklist

To ensure that your project complies with solar-ready requirements, please include the following in plan submittals and integrate them in the project construction.

- ✓ Solar-ready zone indicated on a roof plan that complies with above location and dimension requirements.
  - Provide dimensions and slopes on a scaled roof plan of the solar-ready zone.
  - Provide dimensions to all roof edges, ridges, and valleys.
- ✓ Capped roof penetration sleeve location and size indicated on roof plan, if the solar-ready zone roof slope is less than 2:12.
- ✓ Design roof dead and live loads are indicated on construction documents.
- ✓ Pathways for routing of conduit or plumbing from the solar-ready zone to the electrical service panel or service hot water system should be indicated on the construction documents. Please note that the proposed, future conduit route must be displayed, but conduit installation is not required.
- ✓ Reserved space on the main electrical service (or feeder) panel for the dwelling indicated on the construction documents to allow installation of a dual pole circuit breaker for future solar electric installation, positioned at the opposite (load) end from the input feeder location or main circuit location. Plan for this circuit to be labeled "For Future Solar Electric."
- ✓ Indicate the location for a permanent certificate, posted near the electrical distribution panel, water heater or other conspicuous location, indicating the solar-ready zone and other requirements.

## Inspection checklist

- ✓ Confirm solar-ready zone indicated on roof plan is located and oriented as proposed and is free of obstructions or objects that would produce shading.
- ✓ Confirm capped penetration sleeve is installed if the solar-ready zone roof slope is less than 2:12.
- ✓ Confirm there is reserved space on the electrical panel to allow installation of a dual pole circuit breaker for future solar electric installation, that it is positioned at the opposite (load) end from the input feeder location or main circuit location, and that it is labeled "For Future Solar Electric."
- ✓ Confirm there is a permanent certificate, posted near the electrical distribution panel, water heater or other conspicuous location, indicating the solar-ready zone and other requirements.

## Definition

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 water-heating system.

*This checklist summarizes the solar-ready provisions in 2018 International Residential Code (IRC) Appendix T adopted by King County but may not be comprehensive. It does not supersede any code requirements. Additional information may be required on a case-by-case basis.*