

City of Bellingham Policy

Policy No. 2010-003**Title:** Solar water heating systems**Code:** 2006 UPC, 2006 IRC**Chapter:** UPC Appendix L 5.0, IRC Section R105.2**Level of Policy:** Departmental**Date Issued:** February 4, 2010**Developed by:** Jim Tinner, CBO**Date Revised:** N/A**Revised by:** N/A**Approved by:** Jim Tinner

Supersedes: All prior

See Also:

Purpose

To clarify permitting and installation requirements for solar water heating systems..

Scope

Single-family, two-family and townhome buildings which fall under the scope of the International Residential Code.

Definitions

IRC means the International Residential Code.

UPC means the Uniform Plumbing Code.

Policy/Conditions

The installation of roof mounted solar heat collectors meeting all of the following criteria will not create a requirement for structural review or a building permit.

- Total dead load of panels, supports, mountings, raceways and all other appurtenances weighs no more than four pounds per square foot.
- The total solar collector system weight will not exceed 1,000 pounds.
- Panels are to be mounted no higher than 18" above the plane of the roof to which they are affixed.
- Supports are installed to spread the dead load across as many roof framing members as needed to ensure that no point loads in excess of fifty pounds are created.
- All components of the solar collection system must meet the requirements of the UPC.
- Heat exchangers will be double wall with a clear path of heat detection or single wall heat exchangers must meet all requirements of UPC Appendix L 5.0
- Attachment to the roof will be as specified by the mounting system manufacturer.
- All portions of the system must remain at or below height limitations of any code or regulation enforced by the City of Bellingham.
- In portions of the City where design review is required for building modifications, such design review approval must be obtained prior to installation of solar water heating systems.
- Electric permits and inspection approvals are required for all solar water heating systems installations that connect to the building's electric system.
- Plumbing permits and inspection approvals are required for all solar water heating systems that connect to the building's potable water system.

Rationale

Lightweight solar collectors pose no significant structural risk when installed in accordance with the manufacturer's instructions. The UPC provides adequate safeguards of the potable water system.

References/Sources

UPC Appendix L
Seattle DPD

Appendix/Attachment