



Building Safety Commercial Solar Water Heater Requirements

The following checklist has been prepared in order to streamline the process of applying for and obtaining a permit for your solar water heating system. It is important that the installation be permitted and inspected to insure the safety of the installation. If you have any further questions regarding your permit, please contact the Building Safety Department at (623) 930-2800. If you have issues regarding planning or zoning items, you may contact Remigio Cordero at that same phone number.

A permit application can be obtained through the following website:

<http://www.glendaleaz.com/buildingsafety/documents/Permit-Application.pdf>

Please note that a licensed contractor is required to install your system and they will be able to assist you by providing the information you need to obtain a permit. Check with your local utility company for a list of approved licensed contractors and additional requirements.

Building Safety Requirements: In order to complete the application and obtain a permit, you will need to provide the following information.

- 1.) Property owner
- 2.) Property address
- 3.) Contractor's name and license number
- 4.) Contractor's City of Glendale Sales Tax number
- 5.) Size of the system
- 6.) Valuation of the system including the installation

You will be expected to provide plans to the city for the system that you are proposing. The information you will need to provide includes (but is not limited to):

- 1.) A site plan will be required showing the location of all buildings on the property as well as the location of the unit on your property.
- 2.) Specify the applicable codes (2006 IBC, 2006 UPC, 2006 IMC, & 2005 NEC + City of Glendale Amendments)
- 3.) Provide a floor plan indicating the location of all equipment and label all rooms
- 4.) Specify the temperature and pressure relief line (T&P) location and it's termination details (i.e. terminates outside in downward position between 6" and 24" above grade) (UPC, 608)
- 5.) Specify the electrical disconnecting means of all equipment. This could include an electrical disconnect at the water heater, a plug in type circulating pump, lock-offs at breaker in service panel, or a service panel within sight (NEC, 422.30) Keep in mind if you add a new receptacle you must show the proper branch circuit wiring on the plans.
- 6.) All free standing units must be installed on a minimum 4 inch thick slab on grade.
- 7.) Be aware that all water heaters in a garage have an ignition source that produces a spark. Comply with the current IMC and UPC code requirements.

- 8.) Provide a roof plan showing the location of all equipment, existing roof material and slopes
- 9.) Provide structural engineering for any equipment mounted on a roof and show all connection details.
- 10.) Provide locations of all other equipment on the roof and provide the proper clearances
- 11.) Provide and/or maintain proper roof and equipment access
- 12.) Specify and provide flashing at all roof penetrations
- 13.) Provide cut sheets and listings of all equipment from a nationally recognized testing agency such as UL.
- 14.) Provide the specifications for installation on the job site.

Requirement assumes new replacement water heater electrical load will be equal to or less than the original water heater electrical load.

Permit fees - Based on the City of Glendale currently adopted fee schedule, the fees for a commercial solar water heating system will be based on its valuation.

(These fees are adjusted annually based on the Consumer Price Index. This increase takes place on August 1 of each year.)

Fire Department Requirements:

- 1.) Provide minimum 3 feet clear space on roof on at least one side of eave and from ridge for fire access and venting.

****Contact the Fire Plans Examiner at (623) 930-2800 for additional requirements & details****

Planning Requirements:

- 1.) All free standing units must meet accessory structure provisions for their particular zoning district as specified in the Zoning Ordinance in Section 7.300 on page 161 (of 172) at <http://www.glendaleaz.com/planning/documents/AppendixAZONING.pdf>
- 2.) Planning and Zoning regulations, involving such requirements as setbacks, height limitations, color, reflectivity, or other design considerations may apply. Contact Remigio in the Planning Department at 623-930-2800 for further information.

See Development Services Department for residential applications