



## **Building Safety Residential Photovoltaic System Requirements**

The following checklist has been prepared in order to streamline the process of applying for and obtaining a permit for your photovoltaic 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 the structural or electrical items, please contact Plans Examiner, Adam Venetis for assistance. If you have issues regarding planning or zoning items, you may contact Remigio Cordero, city Planner. Both Adam and Remigio can be reached at (623) 930-2800. A permit application can be obtained through the 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 (in KW)
- 6.) Valuation of the system including the installation (before rebates)

You will be expected to provide four complete sets of plans to the city for the system that you are proposing. The information you will need to provide in those sets include:

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 (Currently, 2006 IRC & 2005 NEC + City Amendments)
3. Provide a note on the plans that the photovoltaic system shall be installed in accordance with NEC 690 and posted with applicable warnings, signage and plaques per NEC 705-10, 690-17, and 690-64(b)(5)
4. All free standing units must be installed on a minimum 4 inch thick slab on grade.
5. Provide and specify the electrical disconnecting means of all equipment. This could include any electrical disconnects, lock-offs at breakers, or a service panel within sight of any photovoltaic equipment (NEC, 422.30)
6. Provide an electrical one-line diagram of the service entrance system. Also include a three-line diagram showing individual conductor types and sizes, conduit sizes, as well as their

- connection points. Be sure to specify if the electrical service panel is existing or new and the size (in amps). Provide a simple roof plan showing new and existing equipment locations
7. Provide a load calculation worksheet for the residence if you de-rate the main circuit breaker on the main electrical service.
  8. Provide the existing roofing material and the existing slope (IRC, Chapter 9)
  9. Provide the size and weight of all roof top units. Please be aware the maximum allowable additional loading of all roof units supported by trusses is 5 pounds per square foot and a 50 pound point load. For conventionally framed roofs the applicant will need to provide all framing member sizes, spacing, and any other pertinent information to the reviewer so they can determine if the existing members can handle the additional loading.
  10. Specify the anchoring method of all units (Minimum 3/8" diameter anchors into blocking.
  11. Specify and provide flashing at all roof penetrations (IRC, R903)
  12. Provide cut sheets and listings of all equipment from a nationally recognized testing agency such as UL.
  13. Provide the specifications for installation on the job site.

\*All existing vents/flue's through the roof shall not be compromised by the installation of the new equipment.

**Permit fees** - Based on the City of Glendale currently adopted fee schedule, the fees for the photovoltaic system for residential construction will be as follows:

Base Residential Permit Fee:	\$26.17
Sub-Panel Fee:	33.96
1 Hour Inspection Fee:	106.46
<u>1 Hour Plan Review Fee:</u>	<u>107.96</u> (\$107.96 due at application submittal)
Total Permit Fee:	\$274.55 (Remaining \$166.59 due at permitting stage)

(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 commercial applications\*