Kittitas County requires a building permit to install Photovoltaic (PV) Solar Panel(s) for residential and commercial uses.

Other permits may be required per Washington State Labor and Industries or Utility Providers.

An Administrative Permit is required and may be obtained Over the Counter for a Roof Mounted or Ground Mounted PV Solar System with the following minimum requirements:

1. Complete site plan.
2. Roof plan (if roof mounted).
3. Elevation(s) (if roof mounted).
4. Manufacturer’s specifications.
5. Engineering (if required, see below).

**Roof Mount Option**

(July 1, 2014 Washington State Building Code Council Emergency Rule supplemental to the 2012 IRC):

**WAC 51-51-2300 Section M2302—Photovoltaic solar energy systems.**

**M2302.2 Requirements.** The installation, inspection, maintenance, repair and replacement of photovoltaic systems and all system components shall comply with the manufacturer’s instructions, sections M2302.2.1 through M2302.2.3, NFPA 70, and the IFC as amended by Washington State.

**M2302.2.1 Roof-mounted panels and modules.** Where photovoltaic panels and modules are installed on roofs, the roof shall be constructed to support the loads imposed by such modules.

**EXCEPTION: The roof structure shall be deemed adequate to support the load of the rooftop solar photovoltaic system if all of the following requirements are met:**

1. The solar photovoltaic panel system shall be designed for the wind speed of the local area, and shall be installed per the manufacturer’s specifications.
2. The ground snow load does not exceed 70 pounds per square foot (see exception below).
3. The total dead load of modules, supports, mountings, raceways, and all other appurtenances weigh no more than four pounds per square foot.
4. Photovoltaic modules are not mounted higher than 18 inches above the surface of the roofing to which they are affixed.
5. Supports for solar modules are to be installed to spread the dead load across as many roof-framing members as needed, so that no point load exceeds 50 pounds.

Roof-mounted photovoltaic panels and modules that serve as roof covering shall conform to the requirements for roof coverings in IRC Chapter 9. Where mounted on or above the roof coverings, the photovoltaic panels and modules and supporting structure shall be constructed of noncombustible materials or fire-retardant treated wood equivalent to that required for the roof construction.
Exception to Engineering above 70 psf ground snow for Roof Mounted systems:
(must still meet all criteria of 1, 3, 4 and 5 of WAC 51-51-2300 above)

1. Trussed roof structures completely covered in metal roofing of any pitch and configuration.
2. Trussed roof structures with composition or other non-slippery roofing materials if panels are mounted from ridge to eave and there are no other roofs, obstructions or structures below. (Panels must maintain a minimum of 12” space below the ridge.)
3. Stick framed structures built after 1974 and also meeting the conditions of 1 or 2 above.

Limited Engineering above 70 psf ground snow for Roof Mounted systems:
(engineering need only address the ability of the roof framing to carry the additional weight of the panels)

Stick framed roof structures built before 1974 completely covered in metal roofing of any pitch and configuration; or with composition or other non-slippery roofing materials if panels are mounted from ridge to eave and there are no other roofs, obstructions or other structures below. (Panels must maintain a minimum of 12” space below the ridge.)

Complete Engineering above 70 psf ground snow for Roof Mounted systems:
(this will require a plan review and will be placed in line with other permits and reviewed in the order it was received)

1. If unable to meet any of the exceptions listed above, complete engineering shall be required.
2. Engineering shall consist of the following:
   a. If stick framed prior to 1974 engineering shall address the ability of the roof to support the additional weight of the panels and;
   b. If panels do not extend to the ridge or the eave, engineering to address the probability of ice damming and specify methods of preventing or modifying roof to eliminate damage and;
   c. If there are other roofs, obstructions or structures below, engineering to address impact loading, drifting snow and other snow load issues as deemed necessary by the engineer.

Ground Mount Option

PV panels mounted on a ground pole or rack style system shall adhere to the following:
2. Meet all current zoning setbacks. Panels shall be mounted on a pole or rack style system per manufacturer’s specifications and designed to resist wind forces.
3. Pole mounted systems less than 16’-0” in total height are required to have poles mounted 4’-0” deep in concrete or provide engineering.
4. Rack mounted systems greater than 16’-0” total height require engineering.

Required documentation for permitting:

1. Building Permit application with parcel map number or tax parcel identification.
2. Site plan and Foundation plan if ground mounted. Include emergency disconnect location and identification.
3. Roof plan and Elevation if roof mounted. Include emergency disconnect location and identification.
4. Manufacturer’s installation specifications and guidelines.
5. Engineering for roof mounted installations over 70 psf snow load. Engineering needs to address how the panels affect the roof snow load (Impact loading, Drifting snow, Ice damming, etc.)
6. Engineering for ground mounted systems if over 16’-0” height or less than 4’-0” deep in ground/concrete.

All required electrical permit(s), review and inspection(s) must be obtained from Washington State Labor and Industries.
Inspection Requirements:

1. Roof mount panels require two (2) inspections minimum. The first inspection is for the roof mount racking hardware to verify compliance and attachment. (You may schedule this inspection for the day the panels are being installed. You may begin mounting panels over the racking prior to inspection but there must be enough racking exposed for the inspector to verify compliance.) The final inspection shall be scheduled when the project is complete and after Labor and Industries has approved the electrical.

2. Ground mount systems will require a minimum of two (2) inspections. The first inspection is for the hole depth and width. The final inspection after backfill and installation complete including Labor and Industries final inspection.

Exception: The first inspection may be waived if an engineered, pre-cast concrete ground mount system is to be used and an emailed picture adequately showing the hole width and depth (show tape measure in hole) has been provided. The critical areas and setbacks must be adhered to and will be checked at final inspection. Failure to meet the setbacks will require removal of the ground mount system and re-placement.

DATE: 12-17-14 BUILDING OFFICIAL: [Signature]