



## **Requirements For Residential Photovoltaic (PV) Systems**

- Valuation to include labor and material before rebates
- Specify if the array is ground, flush, or tilt up system
- Locate array on roof plan.
- Planning and Zoning approval required
- Electrical Permit required (see below)
- Provide safe access for inspections
- Requires (2) sets of all paperwork submitted

### **Note: Roof Mount Systems creating a dead load greater than the roof system design allows, requires Engineering Including:**

- Original Engineered Stamped Details showing site specific attachment to existing structure (Roof, Wall, Trusses, Rafters, etc)
- Compliance with R802.10.4 - **Alterations to trusses**. Truss members shall not be cut, notched, drilled, spliced, or otherwise altered in any way without the approval of a design professional. Alteration resulting in the addition of load (e.g., HVAC equipment, water heater) that exceeds the design load for the truss shall not be permitted without verification that the truss is capable of supporting such additional loading.
- Design Criteria (Wind, Exposure, Snow, etc.)
- Fasteners (Type, Size, Length, etc.)
- Installation Instructions
- **Electrical Permit submittal requires:**
  - Specifications for all components (i.e. rack/module mounting and installation requirements, listing information, etc.)
  - Module cut sheets (including description, weight, markings per NEC article 690.51) open circuit voltage, operating voltage, maximum system voltage, operating current, short circuit current, maximum power).
  - Combiner box (installation requirements)
  - Inverter cut sheets (including description, installation requirements, specification information, etc.)
  - 1-line diagram conforming to field installation (including number of modules per string and number of strings).
  - Electrical calculations: including but not limited to:
    - Voltages
    - Conductor sizing (according to insulation, temperature correction, Conduit fill correction, etc.)
    - Overcurrent protection (AC and DC)
    - Disconnect sizes and voltages
    - Type of conductors installed
    - Various wiring methods utilized
- Underground electrical inspection required (when applicable)
- Rough Electrical (when installation is between 25%-50% completed including 25%-50% of modules installed to observe bonding & grounding, etc.)
- Final Electrical inspection required (approved documents on site)
- A service change/adding a new sub-panel requires a separate electrical permit.