



PHOTOVOLTAIC SYSTEM INSTALLATION HANDOUT NOTES 2011 NATIONAL ELECTRICAL CODE

1. Contact Electrical Inspection Services Supervisor prior to beginning Construction.
2. A rough electric inspection shall be performed prior to installing panels on roofs.
3. Provide a independent PV disconnect ahead of the inverter.
4. Equipment grounding conductors used for grounding arrays smaller than is #6 AWG. copper shall be installed in a suitable raceway. All exposed equipment grounding and bonding conductors shall be solid copper or UV rated.
5. Devices (lugs) used for grounding arrays shall be suitable for use in wet locations (tin plated copper) and attachment hardware shall be stainless steel with star washers.
6. Provide all appropriate warning labels at disconnects and equipment.
7. Plastic UV rated cable ties shall not be used to secure exposed wiring between modules. Approved clips, stainless steel cable ties, or stainless steel pipe clamps with rubber inserts are acceptable.
8. Conductors and conduits run on rooftops may require additional ambient temperature adjustments per table 310.15(B)(3)(c).
9. Residential interior PV direct current system conductors shall be identified by system to comply with NEC 2011 section 690.4 (B). Direct Current ungrounded conductors shall be Orange or Yellow. The grounded conductor shall be identified by the color Gray.
10. PV source and output circuits run inside the building shall not be installed within 10" of the roof decking unless installed directly below the roof surface covered by PV modules and associated equipment. 690.31(E)(1)
11. Metal junction boxes, raceways, or other wiring methods supplying dc circuit wiring shall be labeled designating "Photovoltaic Power Source". 690.31. (E)(3) &(4)

Note: The 2011 NEC has many significant changes to article 690 and 705. Installers should carefully review those sections prior to installing photovoltaic systems. This is not an all inclusive list and should only be used as a guideline for reference only.

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