PV System Checklist

Supplied diagrams

(Yes/No)

_____Is a basic site diagram supplied with the permit package?

_____Is location of major equipment identified on the plans?

_____Is a one-line diagram supplied with the permit package?

- _____Array configuration shown
- _____Array wiring identified
- _____Combiner/junction box identified
- _____Conduit from Array to PV Power Source Disconnect identified
- _____Equipment grounding specified
- _____Disconnect specified
- _____Conduit from disconnect to inverter identified
- _____Inverter specified
- _____Conduit from inverter to disconnect to panel identified
- _____System grounding specified
- _____Point of connection attachment method identified

Inverter Information

_____Are cut sheets provided for inverter?

_____Inverter Model number _____

_____Is inverter listed for utility interactivity (see list of eligible inverters)

_____Maximum continuous output power at 40°C-_____

_____Input voltage of inverter _____

PV Module Information

_____Are cut sheets provided for PV modules?

_____Are the modules listed? (see list of eligible PV modules)

_____Open-circuit voltage (Voc) from listing label_____

_____Maximum permissible system voltage from listing label_____

_____Short-circuit current (Isc) from listing label_____

_____Maximum series fuse rating from listing label_____

_____Maximum power at Standard Test Conditions (Pmax on label)_____

_____Voltage at Pmax from listing label_____

_____Current at Pmax from listing label_____

Array Information

_____Number of modules in series_____

_____Number of parallel source circuits_____

_____Total number of modules_____

_____Operating voltage_____
(number of modules in series x module voltage at Pmax)

_____Operating Current_____
(number of parallel source circuits x module current at Pmax)

_____Maximum system voltage (NEC 690.7)_____

_____Short-circuit current (NEC 960.8)_____

Wiring and Overcurrent Protection

_____Wire type is 90° wet rated

_____Conductor ampacities are sufficient

_____Maximum PV source circuit current_____

_____Minimum PV source circuit conductor ampacity_____

_____Minimum PV output circuit conductor ampacity_____

_____Minimum inverter output circuit conductor ampacity_____

_____Source Circuit overcurrent protection is sufficient

_____If inverter is not listed for "no backfeed" current, does each source circuit have overcurrent protection in compliance with the listed maximum series fuse?

_____If inverter is listed for "no backfeed" current, over current protection is not necessary if only two parallel strings are connected to the inverter.

_____Overcurrent protection on Inverter Output circuit is sufficient.

_____Point of connection meets provisions of NEC 690.64.

_____Point of connection panel bus bar rating_____

Roof Information (Rooftop Systems)

_____Are the conductors from the PV Array run through the house?

_____Weight of array for rooftop systems (psf, including mounting hardware)

_____Age of building (roof structure)
Note: If building is under 30 years old and the array weight is less than 5# psf, then engineering calcs are unnecessary for roof loading.

_____If roof structure is over 30 years old, describe the structural elements.

_____Rafter dimensions

_____Span of rafters

_____Spacing of rafters

_____Roofing type (comp, tile, shake, etc)

_____Is the detail of PV panel mounting attachment to the roof framing members provided?

_____Identify method of sealing roof penetrations.

Ground Mounting Structure (For Ground Mounted Systems)

_____Weight of Array psf, including mounting hardware

_____Are the details of the Array supports, framing members and foundation posts and footings provided?

_____Is the information on mounting structure(s) construction provided? (Engineering may be required for structures over 6 feet in height)

_____Is the detail for module attachment to the mounting structure provided?

Miscellaneous

_____Placarding for disconnects(s) of alternate power sources. NEC 705.10

_____Working space around electrical equipment. NEC 110, II & III

_____Battery interconnections minimum 2/0 flex cables for hard use and moisture Resistance. NEC 690.74 & 400

_____Photovoltaic disconnects to be marked as such. NEC 690.14(2)

_____Conduit support per NEC Art 348 for FMC, 350 for LFMC, 352 for RNC, 356 For LFNC, 358 for EMT

_____Inverters or motor generators shall be identified for photovoltaic system use. NEC 690.4, D

_____Ground fault protection for roof mounted systems. NEC 690.5