

Field Inspection Checklist for Rooftop Photovoltaic (PV) Systems

Make sure all PV disconnects and circuit breakers are in the open position and verify the following.

- 1. All work done in a neat and workmanlike manner [NEC 110.12].
- 2. PV module model number, quantity, and location according to the approved plan.
- 3. Array mounting system and structural connections according to the approved plan.
- 4. Roof penetrations flashed/sealed according to the approved plan.
- 5. Array exposed cables are properly secured, supported, and routed to prevent physical damage.
- 6. Conduit installation according to NEC 690.31(G).
- 7. Firefighter access according to approved plan.
- 8. Roof-mounted PV systems have the required fire classification [IBC 1505.9 or IRC R902.4].
- 9. Grounding/bonding of rack and modules according to the manufacturer's installation instructions.
- 10. Equipment installed, listed and labeled according to the approved plan (e.g., PV modules, dc/dc converters, combiners, inverters, rapid shutdown equipment).
- 11. For grid-connected systems, inverter is marked "utility interactive" or documentation is provided to show that inverter meets utility interconnection requirements.
- 12. Conductors, cables, and conduit types, sizes and markings according to the approved plan.
- 13. Overcurrent devices are the type and size according to the approved plan.
- 14. Disconnects according to the approved plan and properly located as required by the NEC.
- 15. Inverter output circuit breaker is located at opposite end of bus from utility supply at load center and/or service panelboard. If panel is center-fed, inverter output circuit breaker can be at either end of busbar [NEC 705.12(B)] (not required if the sum of the inverter and utility supply circuit breakers is less than or equal to the panelboard bus rating).
- 16. PV system markings, labels and signs according to the approved plan.
- 17. Connection of the PV system to the grounding electrode system according to the approved plan.
- 18. Access and working space for operation and maintenance of PV equipment such as inverters, disconnecting means and panelboards (not required for PV modules) [NEC 110.26].
- 19. The rapid shutdown system is installed and operational according to the approved plan [NEC 690.12].