

## **Rooftop Solar Photovoltaic (PV) System Field Inspection Checklist**

This checklist provides basic guidelines for inspecting most residential rooftop solar PV systems (15 kW and under). Ground-mounted systems, systems with energy storage, building-integrated systems, and commercial systems, for example, would not be fully covered by this checklist. The intent of using the checklist is to provide transparent and well-defined information to minimize the number of re-inspections and accelerate project completion for most PV systems. These guidelines are not exhaustive.

### **Ensure that all submitted plans and work carried out complies with the City's Adopted Codes:**

- 2024 International Building Code
- 2023 National Electrical Code
- 2024 International Existing Building Code
- 2024 International Fire Code
- 2024 International Mechanical Code
- 2024 International Residential Code
- 2024 International Fuel Gas Code
- 2024 International Property Maintenance Code

### **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 and manufacturers' instructions.
- 4.** Roof penetrations flashed/sealed according to the approved plan and manufacturers' instructions.
- 5.** Exposed cables are properly secured, supported, and routed to prevent physical damage.
- 6.** Conduit installation according to NEC 690.31(D) and the approved plan.
- 7.** Firefighter access according to IRC R324 and the approved plan.
- 8.** Roof-mounted PV mounting system and modules have sufficient fire classification [IRC R324.4.2].
- 9.** Grounding/bonding of rack, modules, inverter(s), and other electrical equipment according to the manufacturer's instructions.
- 10.** Equipment installed, listed, and labeled according to the approved plan and manufacturers' instructions (e.g., PV modules, inverters, dc-to-dc converters, rapid shutdown equipment).
- 11.** For grid-connected systems, inverter is marked "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.



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- 17.** Connection of the PV system equipment grounding conductors 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 and manufacturers' instructions [NEC 690.12].

**Contact Information**

If you have any questions, please contact Rolling Meadows Community Development Department at 847-506-6030, or email at [CD@CityRM.org](mailto:CD@CityRM.org)