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| **PI-12** | Post solar PV inspection requirements online, including the inspection process and what details inspectors will review. |

**Objective:**

Providing an online list of inspection requirements will reduce informational barriers between inspectors and solar installers, helping to ensure that all items in the inspection process have been adequately addressed before inspectors arrive on site. These checklists can be used to highlight “common mistakes” made by installers.

The template below provides basic guidelines for inspecting most residential rooftop solar PV systems (15 kW and under). The checklist includes solar-specific code requirements from the 2020 National Electrical Code (NEC) and the 2018/2021 International Residential Code (IRC), but there may be other structural, electrical, and/or zoning requirements that apply as well, and specific references may need to be adjusted if other codes are enforced. Local governments can use this document to create custom checklists that align with state and local code requirements. The checklists can be used by reviewers, inspectors, and installers. **For a more detailed field inspection checklist, please refer to the Interstate Renewable Energy Council’s 2018 Model Solar PV Field Inspection checklist, found** [**here**](https://solsmart.org/wp-content/uploads/PV-Inspector-Checklist-March-2018.pdf)**.**

Include all relevant information for a residential rooftop solar PV system field inspection in this checklist.

**This credit is completed when the field inspection checklist is posted on the local government’s webpage.**

**Verification:**

Provide a link to the online document outlining the inspection process and requirements.

**How to Use the Template**

1. Copy the text on the next page below the double lines.
2. Paste the text on your local government’s letterhead or other branded document.
3. Review the helpful tips (in gray) and highlighted sections, and update with the appropriate information. Delete the helpful tips prior to finalizing the checklist.

**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.

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

**Helpful tip**: Update the following checklist to include any relevant state or local code requirements.

* **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.
* **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**

**Helpful tip:** Include contact information to streamline communication. Edit the following information, as necessary.

If you have any questions, please contact us at:

* Staff POC (if applicable):
* Office Email:
* Office Phone Number: