## **Planning & Development Services**



Boise City Hall, 2nd Floor 150 N. Capitol Boulevard P. O. Box 500 Boise, Idaho 83701-0500 Phone: 208/384-3802 Fax: 208/384-3867 TDD/TTY: 800/377-3529 Website: www.cityofboise.org/pds

## **Planning & Development Services Building/Electrical Division Policy**

- Solar Photovoltaic (PV) Field Inspection Process Title: **Code Name:** Idaho Statutes and Administrative Rules / IDAPA; NEC **Code Sections:** IDAPA 07.01.04\014\09; NEC Article 100 **Code Language**: • Solar Photovoltaic. All such installation, maintenance, and repair not exempt under the provisions of Section 54-1016, Idaho Code, performed by individuals under this Subsection shall be done in accordance with the applicable provisions of the National Electrical Code. The license holder shall be employed by a licensed electrical contractor whose license shall be covered by this category. The holder of such specialty license may not countersign a contractor's application as a supervising specialty journeyman except for work in his specialty. Applicants for this license class shall provide proof of photovoltaic installer certification by the North American Board of Certified Energy Practitioners (NABCEP) or equivalent. Any person licensed in this category may perform the following types of installations: (3-29-12) a. Solar Photovoltaic DC Systems: Install, maintain, repair, and replace all electrical equipment, wires, and accessories up to and including the inverter. (3-29-12) b. Solar Photovoltaic micro-inverter/AC Systems: Install, maintain, repair, and replace all electrical equipment, wires, and accessories up to and including the AC combiner box. (IDAPA 7.01.0401409)
  - Photovoltaic (PV) System. The total components and subsystem that, in combination, convert solar energy into electric energy suitable for connection to a utilization load. (Ref. NEC article 100)

**Scope of Policy:** Boise City field inspection process for residential & commercial buildings and Idaho State Code requirements for all Solar Photovoltaic systems.

**Policy:** Boise City Code requires a Building permit and an Electrical permit prior to commencing installation of Photovoltaic panels. Idaho Code requires a licensed Electrical Journeyman to complete the installation beyond the converter box /AC combiner box, unless exempted by 54-1016 of Idaho Code (regulated utility company).

In residential application, panels & modules are required to be listed and labeled in accordance with UL 1703 and can be installed by a homeowner, or Idaho Licensed contractor, or certified contractor (North American Board of Certified Energy Practitioner), or equivalent. Panels and modules must be located in approved locations.

Commercial installations require an Idaho licensed contractor. Panels and modules must be located in approved locations. Photovoltaic systems shall comply with Article 690 and the requirements of article 705, as applicable. Where Article 705 and Article 690 differ, the requirements of Article 690 shall apply and, if the system is operated in parallel with a primary source(s) of electricity, the requirements in 705.14, 705.16, 705.32, and 705.143 shall apply.

A three stage inspection process is required.

- 1. Rough-in electrical inspection will verify Grounding, Bonding to structure, and Listing of all components.
- 2. Final electrical inspection will verify wiring methods of system, disconnect labeling, and working clearances.
- 3. The final building inspection will be performed by the Structural field inspector under the Building permit which will include verification of array support connections, panel layout, and clearances.

Note: A Planning and Zoning inspection may be necessary prior to the final building inspection if the project is within a historic district.

**Intent:** To provide clarification of City of Boise Photovoltaic inspection process for the permitting and field inspection of commercial and residential Solar Photovoltaic systems in residential and commercial buildings.

**Building Official** Jason Blais Effective Date 03/14/2016

**Chief Electrical Inspector** Daryl DeGrange Effective Date 03/14/2016

Date Retired

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