

Owner's Name _____ A.P.# _____
 Contractor _____ Date _____
 Project Address _____ Appl.# _____

SOLAR PHOTOVOLTAIC SYSTEMS PLAN CHECK LIST

THE FOLLOWING ITEMS HAVE BEEN COMPLIED WITH _____ YES NO

This system is a pre-approved photovoltaic system. _____

ARTICLE 690—SOLAR PHOTOVOLTAIC SYSTEMS

A. GENERAL

690-4. Installation.

1. **Conductors of Different Systems.** Photovoltaic source circuits and photovoltaic output circuits shall not be contained in the same raceway, cable tray, cable, outlet box, junction box, or similar fitting as feeders or branch circuits of other systems. _____

2. **Module Connection Arrangement.** A conductor to a module or panel shall be so arranged that removal of a module or panel from a photovoltaic source circuit does not interrupt a grounded conductor to another photovoltaic source circuit. _____

3. **Equipment.** Inverters or motor generators shall be identified for use in a solar photovoltaic system. _____

690-5. Ground Fault Detection and Interruption.

1. Roof mounted photovoltaic arrays located on dwellings shall be provided with ground-fault protection to reduce fire hazard. The ground-fault protection circuits shall be capable of detecting a ground fault, interrupting the fault path, and disabling the array. _____

B. CIRCUIT REQUIREMENTS

690-7. **Maximum Voltage.** _____

690-8. **Circuit Sizing and Current.** _____

690-9. **Overcurrent Protection.** _____

C. DISCONNECTING MEANS

690-13. All Conductors.

1. Means shall be provided to disconnect all current-carrying conductors of a photovoltaic power source from all other conductors in a building or other structure.[see exception] _____

690-15. Disconnection of Photovoltaic Equipment.

1. Means shall be provided to disconnect equipment, such as inverters, batteries, charge controllers, and the like, from all ungrounded conductors of all sources. If the equipment is energized from more than one source, the disconnecting means shall be grouped and identified. _____

690-16. Fuses.

1. Disconnecting means shall be provided to disconnect a fuse from all sources of supply if the fuse is energized from both directions and is accessible to other than qualified persons. Such a fuse in a photovoltaic source circuit shall be capable of being disconnected independently of fuses in other photovoltaic source circuits. _____

690-17. Switch or Circuit Breaker.

1. The disconnecting means for ungrounded conductors shall consist of a manually operable switch(es) or circuit breaker(s) [1] located where readily accessible, [2] externally operable without exposing the operator to contact with live parts, [3] plainly indicating whether in the open or closed position, and [4] shall have an interrupting rating sufficient for the normal circuit voltage and current that is available at the line terminals of the equipment. Where all terminals of the disconnecting means may be energized in the open position, a warning sign shall be clearly legible and shall read substantially: "WARNING—ELECTRIC SHOCK—DO NOT TOUCH—TERMINALS ENERGIZED IN OPEN POSITION." _____

690-18. Disablement of an Array.

1. Means shall be provided to disable an array or portions of an array. _____

- 690-43. Equipment Grounding.
- 690-45. Size of Equipment Grounding Conductor.
- 690-47. Grounding Electrode System.

F. MARKING

- 690-52. Photovoltaic Power Sources.

G. CONNECTION TO OTHER SOURCES

- 690-61. Loss of System Voltage.
- 690-62. Ampacity of Neutral Conductor.
- 690-64. Point of Connection.

H. STORAGE BATTERIES

- 690-71. Installation.
 - 1. General.
 - 2. Storage batteries for dwellings shall have cells connected so as to operate at less than 50 volts.[see exception].
 - 3. Live parts of battery systems for dwellings shall be guarded to prevent accidental contact by persons or objects, regardless of voltage or battery type.
 - 4. A listed, current-limiting , overcurrent device shall be installed in each circuit adjacent to the batteries where the available short-circuit current from a battery or battery bank exceeds the interrupting or withstand ratings of other equipment in that circuit.
- 690-74. Battery Interconnections.

ARTICLE 480—STORAGE BATTERIES

- 480-5. Insulation of Batteries Not over 250 Volts.
- 480-7. Racks and Trays.
- 480-8. Battery Locations.
 - 1. Provisions shall be made for sufficient diffusion and ventilation of the gases from the battery to prevent the accumulation of an explosive mixture.
 - 2. Guarding of live parts shall comply with Section 110-17.
- 480-9. Vents.

WEIGHT OF PANELS ON ROOF

- 1. The total weight of all solar equipment located on roof has been specified.

ATTACHMENT OF PANELS

- 1. Details of attachment are shown for all solar panels.

SPECIAL INSTRUCTIONS TO INSPECTORS

- 1. The following special instructions are intended to help the inspector during the field inspection of the solar equipment: _____
