

Solar PV Inspection Checklist for REI #ELE- \_\_\_\_\_ Installer \_\_\_\_\_

Job Address \_\_\_\_\_ City/Township \_\_\_\_\_

### PV Inverter

- Is the PV system utility-interactive or stand alone? 690.2
- Is all the equipment listed for PV application? 690.4
- Is the system grounded or ungrounded? (if ungrounded, the system needs to comply with 690.35)
- Has DC Ground-Fault Protection been provided and properly labeled? 690.5 & 690.35(C)?
- What is the maximum PV system voltage? 690.7
- Is all listed equipment rated for the maximum voltage? 690.7
- Determine the maximum circuit current for the PV Source and Output Circuit; Inverter Output Circuit; Stand-Alone Inverter Input Circuit; and DC to DC Converter Output (refer to inverter documentation)

### Wiring Methods and Disconnecting Means

- Are the conductor and cable ampacities determined at 125% before adjustment factors? 690.8 (B)
- How are the PV Source and Output Circuit protected from overcurrent? 690.9 (A&B)
- Do AC or DC OCPD's have the appropriate voltage, current and interrupt ratings? 690.9(C)
- Has arc-fault circuit protection been provided for DC source and/or output circuits? 690.11
- Is a rapid shutdown required and if so, how is it accomplished and identified? 690.12
- Is the PV disconnect permanently marked and installed in a readily accessible location? 690.13
- Has the fuse disconnecting means, if required, been installed? 690.16
- Are PV source or output circuits > 30 volts in a raceway or guarded if readily accessible? 690.31
- Is single conductor cable used outdoors Type USE-2 or listed & labeled PV wire? 690.31(C)  
(Ungrounded systems must be labeled PV wire only. 690.35)
- Are PV source or output circuits on or inside a building in a metal raceway and marked? 690.31(G)
- Are all connectors polarized, guarded, latching-type or tool-safeguarded, rated to interrupt the available current or labeled "Do Not Disconnect Under Load"? 690.33

## System Grounding

- Has the system been grounded at one single point? 690.42
- Are all exposed non-current carrying metal parts of the PV system grounded? 690.43(A&B)
- Are the mounting structures or systems used for equipment grounding? 690.43(C&D)
- Are the interconnecting devices used for equipment grounding listed and identified? 690.43 (C&D)
- Is the EGC properly sized and protected if exposed and smaller than #6? 690.50, 250.122, 250.120(c)
- Has the grounding electrode system been installed? 690.47
- If both are present, has the DC grounding electrode system been bonded to the AC GES? 690.47(C)
- Was an auxiliary electrode installed at the array? 690.47 (D)

## Interconnection

- Has a plaque or directory been installed at each disconnecting means (capable of interconnection) denoting all electric power sources & power production sources? 705.10
- Has the point of connection to other sources been installed per 705.12? 690.64
- Is the supply side disconnect readily accessible and within 10' of the connection point? 705.12 (A)
- Are the utility interactive inverters connected to the system through a dedicated circuit breaker or fusible disconnecting means? 705.12(D)(1)
- Does the bus or conductor ampacity comply with 705.12(D) (2)?
- Have all the required labels been applied?

## Required Documentation

- Manufacturer's specifications for the inverter
- Manufacturer's specifications for the module
- Manufacturer's specifications for the optimizer (if used)
- Verification that the racking system grounding and bonding is listed