



TECHNICAL BULLETIN

TOPIC: Photovoltaic System Design, Installation, and Inspection

Design- Due to the COMPLEXITIES of PV Designs which require engineering education, training, experience and the application of Special Knowledge and judgment of the mathematical, physical, and engineering sciences and to provide a reasonable level of safety, health, property protection and general welfare, Solar/PV Systems Installation Plans are required to comply with the following endorsements:

- Structural Plans including sheets with design criteria shall be signed/sealed/dated by a Texas Professional Engineer. (Ref. 2021 IRC, R106.1 and R324.4.1)
 - o An analysis of EXISTING roof structural components is needed to show it can support the proposed PV System
- Electrical Plans including sheets with design criteria shall be signed/sealed/dated by a Texas Professional Engineer* or signed by Texas/TDLR Licensed Master Electrician, with current date and license number indicated. (Ref. 2021 IRC, R106.1)
 - o Plans shall be designed in accordance with the 2020 NEC
- Manufacturer's specifications for the proposed PV modules and proposed PV inverter(s) with all electrical information shall be provided with submitted plans.
 - o Major components shall be certified to UL 2703, UL 62109, or UL 1741 standard to include all associated equipment by a (NRTL).

Installation – PV systems and all associated electrical installations are required to be installed by a licensed Electrician in accordance with TDLR Texas Electrical Safety and Licensing Act Sec. 1305.002 for doing electrical work and shall be in accordance with the 2021 IRC and 2020 NEC.

Inspections - Solar installations are typically inspected when service is energized. Therefore, to provide access to service panel for inspection, it is required that a licensed electrician be on site **AT TIME OF INSPECTION** to show compliance with applicable plans and code. Reference TDLR Texas Electrical Safety and Licensing Act Sec. 1305.002 for doing electrical work.

****Texas Professional Engineer shall show proficiency in "Electrical" as provided by TBPELS as outlined in 137.97 (j) and (k) respectively. (Ref. Guideline Responding to Enforcement Request for Proof of Competence)***