



SOLAR PHOTOVOLTAIC (PV) SYSTEM PERMIT APPLICATION CHECKLIST

REVIEW SOLAR ENERGY SYSTEMS GUIDELINES PRIOR TO BUILDING PERMIT SUBMITTAL

REQUIRED INFORMATION

Type of Application

- Residential
- Commercial (Also see Part 2: Commercial Building Requirements)

Type of Solar PV System

- Roof Top: A Solar Panel permit is required
- Ground Mount: Solar Panel permit is required and covers footing inspections
- Other: Building and Solar Panel permits are required (separate building permit for patio cover/roof structure)

Installed in accordance with the National Fire Protection Association National Electrical Code (NFPA 70) as adopted by the State of Texas, applicable ordinances, districts, and/or special use categories (e.g.: zoning or special use, etc.); subject to plan approval. (2020 NEC)

NOTE: The Texas Electrical Safety and Licensing Act requires the Texas Department of Licensing and Regulation (TDLR) to adopt the latest edition of the **National Electrical Code (NEC)** as the electrical code for the state of Texas. TDLR has adopted the 2020 NEC as the electrical code for the state of Texas to establish it as the "minimum standard" for all electrical work in Texas

CONSTRUCTION DOCUMENTS	Applicant Check
<i>Electronic documents shall include, but are not limited to, the following items:</i>	
Size of System (kW)	
Site specific, stamped engineering drawings, assembly installation plans, manufacturer's installation instructions, and/or equipment manufacturer's data sheets	
Make, model, and quantity of module, inverter, and racking system certified to the UL 2703, UL 62109, or UL	
1741 standard by a Nationally Recognized Testing Laboratory as appropriate	
Structure plans for ground mount system	
Method of sealing/flashing for roof penetrations	

Connection details to building or ground mount	
Structural engineering calculations or load diagram (required only when the PV array weight exceeds 5 lbs./sq. ft)	
Data cut sheets for battery storage if applicable (including type of battery)	

SITE PLAN	Applicant Check
<i>Include the PV array layout in compliance with the local government design criteria including</i>	
Line of sight analysis – shows the system is not visible from a public or private roadway/right of way	
Cumulative square footage of total solar array system	
Roof plan showing location of equipment and, if required, fire setbacks	
Existing site easements, property lines, building setback lines, zoning setbacks	
Typical side view detail of the solar PV system mount on the roof	
Location of all existing structures and proposed PV system equipment (including modules, disconnects, inverters, panel boards, combiner boxes, storage batteries, utility meters, etc.)	
Plumbing vent termination: Vent termination is not allowed under solar installations and must be relocated or modified, or an air admittance valve may be utilized in accordance with the International Plumbing Code (IPC) and/or the International Residential Code (IRC). Separate permit may be required	

FIRE CODE REQUIREMENTS	Applicant Check
Installation complies with Section 1204 of the 2018 International Fire Code (IFC) for roof access, pathways and spacing (Sec 1204.2.1.1, Sec 1204.2.1.2 & Sec 1204.2.1.3.)	

ELECTRICAL PLANS	Applicant Check
In addition to the construction documents, include a three-line diagram, a PV equipment manufacturer's engineered line diagram, or a line diagram that meets the requirements of the 2020 NEC sealed by a Texas engineer. A proper line diagram should include:	
AC and/or DC circuit arc fault protection as required by the NEC	
Inverter listed to the UL 62109 or UL 1741 Safety Standard; photovoltaic module(s) listed to the UL 1703 safety standard. Listings conducted by a Nationally Recognized Testing Laboratory	
Inverter AC output disconnect location, utility disconnect location, and AC output over-current protection device rating.	
Location of combiner box(es), disconnect switch, size of source circuit overcurrent protection	
Service panel bus rating and main circuit breaker/fuse ampere rating	

Circuit diagram with conduit, wire type and sizes, and/or cable type and wire sizes	
Battery disconnects and overcurrent protection, if applicable	
Equipment grounding and bonding conductors and grounding electrode conductor, if applicable	
List of all appropriate labels and marking per NEC and IFC requirements	
Manufacturing spec to have current NEC, IFC, IBC, IRC codes	
All plans to be engineered	

ADDITIONAL COMMERCIAL BUILDING INFORMATION

Information about building the PV system will be attached to:

- Occupancy Group
- Number of Stories
- Year Built
- Construction Type
- Area (Square Feet)
- Roof Type
- Fire Sprinkler System (for fully sprinkled building only)