



CITY OF ALBUQUERQUE

Planning Department

Building Safety

Building Permit Submittal Checklist **Photovoltaic Systems (Roof Mounted Systems Commercial and Residential)**

Building and Electrical Permits are required.

Contents herein are minimum compliance requirements for Albuquerque Uniform Administrative Code, 2015 IRC, IBC and 2017NEC.

PRE-REQUISITE-APPROVALS: The following pre-requisite approvals must accompany the building permit application if applicable:

- Historic Preservation District Approval - (505) 924-3342.

ROOF MOUNTED PANELS-MINIMUM SUBMITTALS

- Plans meeting the minimum criteria of the Building Permit Submittal Checklist are to be submitted online. Please call 505-924-3320 option 2 for more information.
- **Building Permit Application:** Complete all the required fields and answer all the questions on the application. Please enter size of system, square footage of work and type of roof in the the work description.
- **Site Plan to scale: (MUST BE LEGIBLE)**
 - Official property address with street names.
 - Site plan indicating location of major components on the property and the footprint of the structure, must include PV array configuration. This shall be an elevation profile of installation.
 - All supporting equipment including sub panels and the location of the main electrical service.
 - Show dimensions and clearances for all equipment.
 - Show dimensions and clearances required for access pathways of commercial installations. Commercial projects must follow Albuquerque Fire Department Solar Photovoltaic System Installation Guidelines.
- **Building Requirements:**
 - Framing plan indicating location of the PV installation layout on the existing roof framing members that support the system. Provide location of point connections for standard installation or block layout for ballast systems.
 - Existing roof information to include roofing type and the number of roof coverings.
 - Proposed method and type of weather-proofing of roof penetrations resulting from PV installation.
 - Provide design professional signed and sealed drawings for all commercial projects.
 - Provide equipment schedule for all components of system, this shall include make, model, and listing classification (i.e. module, inverter, or micro-inverter).
 - Documentation of a New Mexico Structural Engineer's review of existing roof structure (signed and sealed), for residential projects, when any of the following occurs:
 - There is more than one existing roof covering.
 - The total added dead load of the array is greater than 5lbs/sq. ft. for ballasted systems on roof construction.
 - The total added single point load of the array is greater than 45lbs. on roof construction.
 - The total added dead load exceeds 200 lbs. on any one truss, rafter or roof joist.
 - The mounting of the system is of a unique roof mounted design that is not listed for the installation.
 - The roof structure contains over-spanned trusses, rafters or roof joists.
- **Electrical Requirements for: (Both Ground and Roof Mounted)**
 - Electrical one-line diagram is required for PV Systems less than 10KW; otherwise a three-line diagram is required.
 - PV systems that connected to a service that exceeds 200 amps shall be prepared and stamped by a State of New Mexico licensed electrical engineer.
 - Show labeling and locations of placement of labels. It must comply with Article 690 of the 2017 NEC/NMEC.

- Show dimensions of required working clearances of equipment, which must comply with Article 110 of the 2017 NEC/NMEC.
 - Photovoltaic (PV) array configuration, size, type and number of modules per string. Whether they are in series or parallel.
 - Grounding electrode and bonding for the DC System.
 - Required Disconnects for both the AC and DC systems.
 - Conductor sizes, types, temperature rating(s), and ampacity(s).
 - Utility-Interactive Inverter.
 - Point of connection to the utility, must comply with Article 690.64 of the 2017 NEC/NMEC.
 - GFCI protection as required by Article 690.5 of the 2017 NEC.
- Albuquerque Fire Department Requirements:
 - Site Plan to scale of the structure, on which the photovoltaic systems are to be installed to include the following:
 - Access from street to the building.
 - Locations of arrays, disconnects and required signage.
 - Locations of required access pathways. Commercial projects must follow Albuquerque Fire Department's Solar Photovoltaic System Installation Guidelines.
 - Plan and elevations views of the buildings clearly showing the following:
 - Array placement.
 - Roof ridgelines, eave lines.
 - Objects that may be present on the roof (e.g. equipment, vent lines, skylights, smoke vents, roof hatches, fire department connections, and etc).