



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, 2009 IRC, IBC and 2014 NEC.

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

- Two (2) complete sets of plans meeting the minimum criteria of the Building Permit Submittal Checklist are to be submitted.
- Building Permit Application: Complete all the required fields and answer all the questions on the application with blue or black ink.
- Site Plan to scale: (MUST BE LEGIBLE)
 - Official property address with street names.
 - Footprint of the building and North arrow.
 - Site plan indicating location of major components on the property, must include PV array configuration.
 - 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.
 - 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
 - Manufacturer's specifications and installation instructions for all PV modules, inverter(s), solar panels, combiner box(s), disconnect(s) and mounting system(s).
 - All mounting systems and attachments must be approved by a Nationally Recognized Testing Laboratory (NRTL) or reviewed and approved by a New Mexico Licensed Engineer.
 - Documentation of a New Mexico Engineer's review of existing roof structure (and stamp) 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. on roof construction.
 - The total added 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 2014 NEC/NMEC.

- Show dimensions of required working clearances of equipment, which must comply with Article 110 of the 2014 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 2014 NEC/NMEC.
 - GFCI protection as required by Article 690.5 of the 2014 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 etc.