



## **Mesa County Active Solar Energy Systems**

Applicable Codes: 2024 IBC, IRC, IEBC, and 2023 NEC

Colorado Plumbing and Fuel Gas Code

Colorado Model Electric and Solar Ready

The following items must be provided for all PV system applications (as applicable):

- Valuation - **SHALL INCLUDE ALL LABOR AND MATERIALS**
- Three-line diagram showing all conductor sizing and insulation types, overcurrent protective devices and conduit sizing and types.
- All specification sheets of all components including mounting systems, roof and ground mounts. Energy Storage Systems are part of Active Solar Energy Systems per R330 IRC 2024.
- EMS shall comply with article 750.30 NEC 2023.
- The method being used to determine the required ampere rating of busbars.
- Portions of roof structures covered with Photovoltaic Panel Systems shall be designed for the following load case:
  - Dead load (including photovoltaic weight) plus snow load in accordance with Table R301.2 IRC 2024.
  - Rooftop mounted photovoltaic panel or module systems and their supports shall be designed and installed to resist the component and cladding loads specified in Table R301.2.1(1), adjusted for height and exposure in accordance with Table R301.2.1(2) IRC 2024. Calculations performed by a Colorado Professional Engineer must be submitted for review to substantiate that the structure can support the design loads. If structural alterations are required, a Colorado Professional Engineer's sealed and signed drawings will be needed with a separate building permit per Chapter 16 IBC 2024.
- Roof access, pathways and setback requirements shall be provided on the site plan in accordance with sections R329.6.1 through R329.6.2.1. Access and minimum spacing shall be required to provide emergency access to the roof, to provide pathways to specific areas of the roof, to provide for smoke ventilation opportunity areas and to provide emergency egress from the roof.

All commercial and ground mount system designs require structural, foundation, and electrical drawings stamped and signed by a Colorado Professional Engineer. Within the city limits of Grand Junction and Unincorporated areas of Mesa County require planning and fire clearance.

For new construction, and major renovations and additions compliance with the Colorado Model Electric Ready and Solar Ready Code is required. <https://energyoffice.colorado.gov/building-energy-codes-toolkit>

For residential systems a residential planning clearance is required prior to issuance on all ground mount solar permits, regardless of jurisdiction. Roof mount systems require a residential planning clearance prior to issuance if installing the system in DeBeque, Collbran, or Palisade

Generators require a separate permit.