

17.168.050 Solar Facilities.

- A. Purpose and Intent. The purpose of these application requirements and performance standards regarding Solar Facilities is to establish requirements for construction and operation of solar facilities (excluding small-scale solar facilities) and to provide standards for the placement, design, construction, monitoring, modification, and removal of such facilities; to address public safety, minimize impacts on scenic, natural, and historic resources; and to provide adequate financial assurance for decommissioning. These regulations are intended to provide a consolidated list of requirements for the proper consideration of project applications.
- B. Applicability. In addition to other requirements of the Pueblo County Code and Division II, Areas and Activities of State and Local Interest, applications for medium-scale and utility-scale solar projects shall be subject to the provisions contained herein. If regulations in other sections are inconsistent with those set forth herein, then the more restrictive requirement shall prevail. To the extent possible, all other zoning and land development requirements are consistent with those presented in this section.
- C. Zoning districts.
 - 1. Solar facilities shall be subject to a 1041 Permit as a primary use in zoning districts A-1 and P-1.
 - 2. Solar facilities shall be permitted as accessory uses to existing power plants, public facilities, and other existing uses as determined by the Zoning Administrator regardless of zoning district. Such uses are subject to the provisions herein as determined by the Zoning Administrator on a case-by-case basis.
 - 3. Battery facilities shall be subject to a 1041 Permit. They shall be permitted as
 - a. An ancillary use to solar facilities in A-1 and P-1 zoning districts.
 - b. A primary use adjacent to other energy generation facilities and substations.
- D. General Provisions.
 - 4. Project Area. The area included in the Development Plan should include the project boundary, solar facility, PV pods, and buffer zones. The Project Area may include multiple parcels and portions of parcels, which may be leased parcels or leased areas of parcels, and, for purposes of this section, the sum of this area shall be the Project Area and the boundaries of this area shall be the Project Boundary. The purpose of the Project Area is to accommodate a single Solar Facility. Furthermore,
 - 5. Pre-application meeting. Schedule a pre-application meeting with the Zoning Administrator to discuss the location, scale, and nature of the proposed use and what will be expected during that process.
 - 6. Neighborhood Meeting (not applicable in P-1). A neighborhood meeting shall be held prior to the public hearing with the BOCC to give the community an opportunity to hear from the applicant and ask questions regarding the proposed project.
 - a. The applicant shall provide a copy of any letter or notice to the Zoning

Administrator prior to sending out to the public to ensure information is complete and correct.

- b. The applicant shall inform in writing: 1) all owners of record of lands located within 1,000 feet of the property as indicated on the certified list of such owners provided with the application, 2) the Zoning Administrator of all notified property owners, and 3) the Zoning Administrator of the date, time, and location of the meeting, at least seven but no more than 21 days, in advance of the meeting date.
- c. The date, time, and location of the meeting shall be advertised in the official County newspaper by the applicant, at least seven but no more than 21 days, in advance of the meeting date.
- d. The meeting shall be held within the County at a location open to the public with adequate parking and seating facilities which may accommodate persons with disabilities.
- e. The meeting shall give members of the public the opportunity to review application materials, ask questions of the applicant, and provide feedback.
- f. The applicant shall provide to the Zoning Administrator a summary of any input received from members of the public at the meeting and proof of advertisement of the meeting.

E. Application Requirements. A complete 1041 Permit application shall include:

1. Owner Authorization and Information. Documentation of land ownership and/or legal authority to construct all properties within the Project Area.
2. Solar Facility Narrative. A narrative giving a general overview of the Solar Facility, which includes:
 - a. The owner and the operator of the proposed Solar Facility and the applicant,
 - b. The intended utility company to interconnect to the Solar Facility,
 - c. The current uses and physical characteristics of the Project Area and the surrounding area,
 - d. Approximate Rated Capacity of the solar facility project,
 - e. Type and location of interconnection to electrical grid as proposed with the appurtenant Public Utility Commission (PUC),
 - f. Approximate number of panels and representative types,
 - g. The Project Area and Solar Photovoltaic Panel Coverage expressed in acres.
 - h. An inventory with description of all proposed structures and uses including Battery Energy Storage Facilities, inverters, substations, and all structures over 60 ft. in height.
3. Concept Plan. A Concept Plan consisting of aerial imagery of the Project Area superimposed with the Project Boundary and the general location and arrangement of screening, buffer zones, fencing, structures, the proposed PV panels, driveways and

entrances, wildlife corridors, floodplain, electric lines and overhead utility lines, and connections to the electrical grid, and, in addition, labeled with the distances of structures to the property lines. Typical elevations of structures shall be included with the Concept Plan. The intent of the Concept Plan is to be a visual summary of the project and may serve as the cover page of the Development Plan.

4. Development Plan (requirements may be modified by the Zoning Administrator for projects in the P-1 District). The Development Plan, certified by a licensed design professional registered in the State of Colorado (an architect, engineer, or similar professional), shall include the following:
 - a. A legal description of the subject parcels.
 - b. The Project Area and Solar Photovoltaic Panel Coverage expressed in acres.
 - c. The Project Boundary, property lines, lease lines, Official Street Line, and easements within the Project Area.
 - d. Setback lines.
 - e. General location of driveways, parking and entrances onto streets and accompanying site distance reports for such entrances.
 - f. Locations and dimensions of all existing and proposed buildings and structures, including solar panels, charge regulators, inverters, substations, Battery Energy Storage Facilities, structures over 60 feet in height, connections to the grid, fencing, and dwellings and associated accessory structures,
 - g. Preliminary sketches of structure elevations depicting the general style, size, and exterior construction materials in sufficient detail to exhibit the relative compatibility of the proposed development with the character of the neighborhood.
 - h. Location of exterior lights indicating area of illumination and foot-candles.
5. Visual Impact Analysis (not applicable in P-1 and may be waived by the Zoning Administrator for Medium-scale solar facilities). A visual impact analysis demonstrating project siting and proposed mitigation, if necessary, so that the solar facility minimizes impact on the visual character of the surrounding area.

The applicant shall provide accurate, to scale, photographic simulations showing the relationship of the solar facility and its associated amenities and development to its surroundings. The photographic simulations shall show such views of solar structures from locations such as property lines and roadways.

6. Environment Impact Assessment (may be waived by the Zoning Administrator for the P-1 District or for Medium-scale solar facilities).
 - a. Environmental inventory and impact statement regarding any site and viewshed impacts, including direct and indirect impacts to national or state forests and grasslands, national or state parks, County parks, wildlife management areas, conservation easements, recreational areas, or any known historic or cultural resources within three (3) miles of the Project Boundary.
 - b. Wetlands, rivers and streams, and floodplains shall be inventoried, delineated, and

mapped in order to provide baseline data for the evaluation of the current proposal.

7. Covenants/Easements/Restrictions. A copy of any subdivision covenants, utility easements and restrictions associated with the site.
8. A draft Traffic Study (may be waived by the Zoning Administrator for the P-1 District or for Medium-scale solar facilities).
 - a. Information about the proposed project's traffic impacts, modeling both the construction and decommissioning processes, to include:
 - i. The time of day that transport will occur;
 - ii. A map showing the desired primary and secondary routes on the Pueblo Network;
 - iii. Characteristics of the loaded vehicles, including:
 - 1) Length, height, width, curb weight;
 - 2) Maximum load capacity;
 - iv. The number of vehicles transporting goods;
 - v. The frequency of vehicle arrival at the site; and
 - b. The haul route(s) must be provided and approved for construction impacts.
 - c. After review of the application's traffic impact information, the County may require a full traffic study to be accepted by an engineer approved by the County.
9. Construction Schedule. An estimated construction schedule.
10. A draft Grading Plan that limits grading to the greatest extent practicable by avoiding steep slopes and laying out arrays parallel to landforms. The Plan shall include:
 - a. Existing and proposed contours;
 - b. Locations and amount of topsoil to be stripped and stockpiled onsite (if any);
 - c. Percent of the site to be graded;
 - d. An earthwork balance achieved on-site with no import or export of soil; and
 - e. Indicate natural flow patterns in drainage design and amount of impervious surface.
11. A preliminary drainage report prepared by an engineer licensed in the State of Colorado.
12. A draft Screening and Vegetation Plan to include:
 - a. Ground cover species.
 - b. All screening and buffering materials, type of landscaping, and elevations.
 - c. Locations of wildlife corridors.
 - d. Maintenance requirements for screening and ground cover.
13. A draft Decommissioning and Reclamation Plan, certified by a licensed design professional registered in the State of Colorado, which shall include the following:
 - a. The anticipated life of the project.

- b. The estimated decommissioning and reclamation cost in current dollars. The applicant shall provide a cost estimate for the decommissioning and restoration of the facility that shall be prepared by a professional engineer or contractor who has expertise in the removal of the solar facility.
- c. The method for estimating the cost. The estimate shall explicitly detail the cost without any reduction for salvage value. The Solar Facility owner or operator shall engage a qualified individual to recalculate the estimated cost of decommissioning at an interval of every five years.
- d. This estimate shall be reviewed by a third-party as approved by the County.
- e. The method of ensuring that funds will be available for decommissioning and removal. The amount of funds required shall be the full amount of the estimated decommissioning cost provided as cash escrow, surety bond, or other security approved by the County. The surety shall be updated when the decommissioning cost estimate is updated. The estimated cost of decommissioning shall be guaranteed by the deposit of funds in an amount equal to the estimated cost in an escrow account at a federally insured financial institution approved by the County unless otherwise provided for in subsection 4 iv. below.
 - i. The applicant shall post a financial security before any building permit is issued to allow construction of the solar facility.
 - ii. The escrow account agreement shall prohibit the release of the escrow funds without the written consent of the County. The County shall consent to the release of the escrow funds upon on the owner's or occupant's compliance with the approved decommissioning plan. The County may approve the partial release of escrow funds as portions of the approved decommissioning plan are performed.
- f. The method for decommissioning the facility and restoring the site.
 - i. Solar facilities that have reached the end of their useful life or have not been in active and continuous service for a period of six (6) months, shall be decommissioned at the Solar Facility owner's or operator's expense, except if the project is being repowered or a force majeure event has or is occurring requiring longer repairs; however, the County may require evidentiary support that a longer repair period is necessary.
 - ii. The Solar Facility owner or operator shall notify the Zoning Administrator in writing of the proposed date of discontinued operations and plans for removal.
 - iii. Decommissioning shall include removal of anything above or below-ground that was constructed or erected as part of the Solar Facility to include structures, buildings, equipment, cabling and wiring, solar electric systems, electrical components, security barriers, driveways, entrances, foundations, pilings, and any other associated facilities, including all material and equipment located underground.
 - iv. Decommissioning shall also include restoration of the Project Area to pre-development conditions, including pre-development grading, to include reseeded/replanting the site to restore it to as natural a pre-development

condition as. The site shall be restored within 12 months of removal of solar facilities.

- v. Any exception to site restoration, such as leaving driveways, entrances, or landscaping in place, or substituting plantings, shall be requested by the landowner in writing, and this request must be approved by the BOCC.
- vi. Hazardous material from the property shall be disposed of in accordance with federal and state law.

14. Additional information may be required as determined by the Zoning Administrator, such as a scaled elevation view of the property and other supporting drawings, photographs of the proposed site, photo or other realistic simulations or modeling of the proposed project from potentially sensitive locations sal.

15. Two sets (11"× 17" or larger), one reduced copy (8½"× 11") and one electronic copy of the concept plan (in .pdf format), including elevations and landscape plans as required.

F. Minimum Development and Performance Standards.

- 1. A facility shall be constructed and maintained in substantial compliance with the approved Development Plan.
- 2. Locational and Dimensional Standards for Solar Facilities. The locational and dimensional standards indicated below for solar facilities are intended to mitigate the adverse effects of such uses on adjoining property owners and the surrounding area.
 - a. The minimum Project Area of a Utility-Scale Solar Facility shall be more than 10 acres, and the maximum Project Area shall be no more than 5,000 acres (no size limit in P-1). Requests for higher acreage projects may be submitted at the time of application if there is a clear justification based on location or other factors.
 - b. The minimum area of a Medium-Scale Solar Facility shall be one (1) acre and the maximum area shall be ten (10) acres.
 - c. The percentage of Solar Photovoltaic Panel Coverage in relation to the Project Area is up to 80% (no limit in P-1).
 - d. Solar Facilities shall be located greater than one (1) mile from:
 - Any defined city or town;
 - The boundaries of Pueblo West and Colorado City Metro Districts.
 - This provision can be waived with supporting documentation of location approval from affected municipality, Pueblo West and Colorado City Metro District.
 - e. The permit boundary shall be located no more than two (2) miles from existing transmission lines (except in P-1). Requests for facilities further than two miles from existing transmission lines may be submitted at the time of application if there is a clear justification based on location or other factors; and

- f. Sited to mitigate negative impacts to residences; historic, cultural, recreational, or environmentally sensitive areas; and scenic viewsheds.
3. Setbacks.
- a. Project Boundary Setbacks. To minimize adverse impacts upon surrounding properties and the community at large, the minimum setback of structures and uses associated with the Solar Facility to exterior parcel. Such structures and uses include fencing, PV panels, parking areas, and outdoor storage.
 - i. 50 feet from commercial and industrial zoned parcels, or
 - ii. 150 feet from all other parcels (unless located within the P-1 District).
 - b. Setbacks from Dwellings. To minimize adverse impacts upon surrounding nearby residential uses, the minimum setback of structures and uses associated with the Solar Facility shall be not less than 500 feet from the nearest dwelling existing at the time the Solar Facility was approved by the County to the nearest Solar Facility structure (typically the fencing).
4. Height. The maximum height of the lowest edge of the photovoltaic panels shall be 10 feet and the maximum height of the highest edge of the photovoltaic panels shall be 20 feet as measured from the finished grade. The maximum height of all other structures associated with the Solar Facility shall be 45 feet as measured from the finished grade at the base of the structure to its highest point, including appurtenances, with the exception of substations and electrical power transmission lines. The Board of County Commissioners may approve a greater height based upon the demonstration of a significant need and where the impacts of increased height are mitigated.
5. Screening (requirements may be modified by the Zoning Administrator). Screening and buffering shall be used to mitigate adverse visual impacts and to provide for compatibility between dissimilar adjoining uses. Screening is required to substantially block any view of material, equipment, or stored vehicles from any point located on a street or adjoining property adjacent to the site.
- a. Existing Screening. Existing vegetation, topography, buildings, open space, or other elements located on the site may be considered as part of the required screening.
 - b. Landscaping. Landscaping intended for screening shall consist of native vegetation appropriate to the project area. A list of appropriate plant materials shall be available at the Planning & Development Office.
 - c. Berming as appropriate. When completed, the berm should not have a uniform appearance.
 - d. Fencing. Fencing intended for screening shall be at least 75 percent visually solid as viewed on any line perpendicular to the fence from adjacent property or a public right of way. Such fencing may be used in combination with other screening methods.
6. Ground Cover. Ground cover on the site shall be native vegetation, and incorporation of native plant species that require no pesticides, herbicides, and fertilizers.

7. Security Fencing. The Solar Facilities shall be enclosed by security fencing not less than six (6) feet in height.
 - a. Fencing must be maintained in a good and functional condition.
 - b. Fencing shall be monitored for buildup of tumbleweeds and other windswept debris and cleared of such as needed. Monitoring and potential clearing of tumbleweeds shall take place as needed but at least once between October 1st and November 31st of each year. Tumbleweeds shall be disposed of in a manner as to mitigate seed dispersal.
8. Wildlife corridors. Access corridors for wildlife to navigate through the solar facility shall be identified and shown on the Development Plan submitted to the County.
9. Exterior/Outdoor Lighting. Outdoor lighting shall be limited to levels required for safety and security. Facilities need to comply with section 17.120.180. All lights shall be shielded.
10. Signs. The County's typical stipulation allowing a sign with a sign permit in accordance with Chapter 17.116 of these regulations.
11. Ingress/Egress. Permanent access roads and parking areas will be stabilized with gravel, asphalt, or concrete to minimize dust and impacts to adjacent properties.
12. Coordination of local emergency services. Applicants for new solar facilities shall coordinate with the County's emergency services staff to provide materials, education and/or training to the departments serving the property with emergency services in how to safely respond to on-site emergencies.
13. At all times, the Solar Facility shall comply with any other condition added or required by the Board of County Commissioners as part of a 1041 Permit approval.
14. Compliance with other local, state, and federal regulations. During the term of this permit, operation shall fully comply with all applicable local regulations, as well as all applicable state and federal regulations.
15. If the Solar Facility does not receive a building permit within 24 months of approval of the 1041 Permit, the Permit may be terminated.
16. Construction timeline. Unless allowed by a phasing plan approved by the Board, the Solar Facility shall be installed in accordance with the Development Plan within three (3) years of approval of the permit. Extensions may be granted by the Zoning Administrator on a case-by-case basis as deemed necessary or appropriate.
17. Traffic. The applicant shall comply with all Colorado Department of Transportation (CDOT) and/or Pueblo County Department of Engineering and Public Works requirements for traffic management during construction and decommissioning of the Solar Facility.
18. Maintenance. The Solar Facility shall be continually maintained and kept in good repair. The Solar Facility operator or owner shall be responsible for the cost of repairing damage to public and private roads occurring because of construction and operation. Failure to

maintain the Solar Facility may result in a show cause hearing. The County reserves the right to require soil and water testing.

19. Inspections. The Applicant will allow designated County representatives or employees access to the facility for inspection purposes. The Applicant shall reimburse the County its costs in obtaining an independent third-party to conduct inspections required by local and state laws and regulations.
20. The owner and operator shall conform with Chapter 17.148 Administrative Regulations, Article 4. Permits, Section 17.148.330 Transfer of Permits.

G. Special provisions for battery facilities. In addition to the above provisions, , the following additional requirements shall be met for the approval of a Battery Energy Storage Facility:

1. Battery Energy Storage Facilities shall be constructed, maintained, and operated in accordance with national industry standards and regulations including the most current adopted edition of the National Electrical Code, International Fire Code of the International Code Council, and the National Fire Protection Association Fire Code. The batteries will be NFPA (National Fire Protection Agency) compliant. In the event of a conflict between the national industry standards and these Conditions, the national industry standards shall control so that as technology advances, updated technology may be used.
2. Battery cells shall be placed in a Battery Energy Storage System (“BESS”) with a Battery Management System (“BMS”). The BESS shall provide a secondary layer of physical containment to the batteries and be equipped with cooling, ventilation, and fire suppression systems. Each individual battery shall have 24/7 automated fire detection technology built in. The BMS shall monitor individual battery module voltages and temperatures, container temperature and humidity, off-gassing of combustible gas, fire, ground fault and DC surge, and door access and be able to shut down the system before Thermal Runaway takes place.
3. The Battery Energy Storage System will be placed on an appropriate foundation.
4. Access to all batteries and electrical switchgear shall be from the exterior for normal operation and maintenance. Access to the container interior shall not be permitted while the system is in operation except for safety personnel and first responders.
5. Qualifications and experience from selected developers and integrators shall be provided including disclosure of fires or other hazards at facilities.
6. Safety testing and failure modes analysis data from selected developers and manufacturers shall be provided.
7. The latest applicable product certifications shall be provided.
8. The Solar Facility operator or owner shall be responsible for any environmental remediation required by the county or the state and the costs of such remediation. All remediation shall be completed in a timely manner.
9. Battery storage shall be developed in collaboration with technical experts and first

responders to utilize technology-appropriate best practices for safe energy storage systems including.

10. The Solar Facility operator or owner shall conduct regular on-site inspections of the battery units and submit an annual written report to the Zoning Administrator on their condition.

H. Special provisions for project related substations. In addition to the above provisions, the following additional requirements shall be met for the approval of a project related substation. Utility owned substations are subject to a separate permitting process.

1. Siting. Substations located within the Solar Facility shall be located in accordance with the Development Plan.
2. Term. Substations included as part of the Solar Facility may have a life longer than that of the remainder of the Solar Facility and may continue under the 1041 Permit as part of this application approval.

I. Final Decommissioning and Reclamation Plan. Prior to issuance of any Solar Facility permits, a final plan shall be approved including all requirements set forth in section E.13 along with the following requirements for decommissioning the Solar Facility and reclamation of the site.

1. Decommissioning shall be performed in compliance with the approved Decommissioning Plan. The BOCC may approve any appropriate amendments to or modifications of the Decommissioning Plan.
2. The County shall consent to the release of funds upon compliance with the approved decommissioning plan. The County may approve the partial release of funds as portions of the approved decommissioning plan are performed.
3. If the owner or operator of the solar facility fails to remove the installation in accordance with the requirements of this permit or within the proposed date of decommissioning, the County may collect the financial security and the County or hired third party may enter the property to physically remove the installation.

J. General Conditions.

1. Site Plan Requirements. In addition to all Pueblo County site plan requirements, the Applicant shall provide the following plans for review and approval for the Solar Facility prior to the issuance of a building permit:
 - a. Construction Management Plan. The Applicant shall prepare a “Construction Management Plan” for each applicable site plan for the Solar Facility, and each plan shall address the following:
 - i. Traffic control methods as identified in the final Traffic Study along with:
 - 1) Lane closures,
 - 2) Signage, and
 - 3) Flagging procedures.

- ii. Site access planning. Directing employee and delivery traffic to minimize conflicts with local traffic.
- b. Construction Mitigation Plan. The Applicant shall prepare a "Construction Mitigation Plan" for each applicable site plan for the Solar Facility, and each plan shall identify and address the effective mitigation of adverse impacts to the satisfaction of the Zoning Administrator. Damage to public roads related to construction activities shall be repaired in a timely manner and not postponed until construction completion. The Applicant shall provide written notice to both the Zoning Administrator and the Director of Engineering and Public Works of the plans for making such repairs, including time within which repairs will be commenced and completed, within thirty (30) days of any written notice received from the Zoning Administrator.
 - i. Driving of posts shall be limited to 7:00 am to 6:00 pm, Monday through Saturday. Driving of posts shall be prohibited on state and federal holidays.
 - ii. Other construction activity on-site shall be permitted Monday through Saturday, and in accordance with the provisions of the County's Noise Ordinance.
 - iii. During construction, the setbacks may be used for staging of materials and parking. No material and equipment laydown area, construction staging area, or construction trailer shall be located within 200 feet of any property containing a residential dwelling.
 - iv. Construction lighting shall be minimized and shall be directed downward.
- c. Traffic Study. The Applicant will submit a final Traffic Study for review and approval if required by the Department of Engineering and Public Works prior to the approval of an access permit. The Traffic Study, if required, will be reviewed and approved by the Department of Engineering and Public Works and/or a third-party if deemed necessary.
- d. Grading Plan. The Applicant will submit a final Grading Plan for review and approval by the Department of Engineering and Public Works prior to the commencement of any construction activities. The Project shall be constructed in compliance with the Grading Plan.
- e. Erosion and Sediment Control Plan. The County will have a third-party review with corrections completed prior to County review and approval. The owner or operator shall construct, maintain, and operate the project in compliance with the approved plan.
- f. Stormwater Management Plan. The County will have a third-party review with corrections completed prior to County review and approval. The owner or operator shall construct, maintain, and operate the project in compliance with the approved plan.
- g. Screening and Vegetation Plan. The applicant will submit a final Screening and Vegetation Plan for review and approval by the Zoning Administrator.

- h. **Revegetation Bond.** The disturbed area shall be any portion of the project area where any vegetative cover or topsoil is removed and these areas shall be clearly shown on a map, clearly showing: all disturbed areas, the acreage calculations for each area, and the total disturbed area acreage. The plant density shall also be noted per the approved Screening and Vegetation Plan. A bond or other form of security agreeable to Pueblo County shall be posted for the revegetation, including all erosion and sedimentation controls, grading, stormwater management, and landscaping. The amount of funds required shall be the full amount of the estimated revegetation cost reviewed by a third-party as approved by the County. Upon achieving final stabilization, as defined in the Colorado Department of Public Health and the Environment (CDPHE) General Permit Number COR-400000 for Stormwater Discharges Associated with Construction Activity, and subject to concurrence of the Pueblo County Department of Engineering and Public Works; the bond will be released.
- i. **Professional Services, Legal Services, and Associated Studies.** The County reserves the authority to charge and collect reimbursement for third-party building plan, site, or other review of any application, including, but not limited to, civil engineer, traffic engineer, landscape architect, urban forester, arborist, attorney, or any other professional costs and associated expenses.