Public Works Division
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TO: Bernalillo County Public Works, Technical Services Department

FROM: Elias Archuleta, P.E., Deputy County Manager Elias Archuleta

DATE: August 4, 2026

SBJECT: Submittal Requirements and Development Standards for Large Scale Solar Development

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1.0 PURPOSE

The Bernalillo County Public Works Submittal Requirements and Development Standards apply to solar energy facility development in unincorporated Bernalillo County, including Utility Scale Solar, ground-mounted Community Solar Systems, and Standalone Battery Energy Storage Systems (BESS). It has been developed to support review of new project proposals and is consistent with approaches adopted by other Counties in the State of New Mexico (Attachment A). Applicants are advised to schedule a pre-application meeting with Public Works as early in the process as possible.

Utility scale solar development, while not without impacts to land, is necessary to protect the health, safety, and welfare of Bernalillo County residents from the adverse impacts associated with unmitigated climate change in New Mexico. Public Works recommends that the County develop a unified Bernalillo County renewable energy facility development policy or ordinance that addresses Public Works, Planning and Development Services, Fire Department, and Economic Development considerations in one document. Such a policy or ordinance would provide the mechanism to establish Decommissioning Plan and associated Financial Assurance criteria (Attachment B), and a process for establishing an escrow account for third party review. Until such a document can be produced and authority to oversee financial assurances granted by the County Commission, the Bond Counsel has stated that they will build Decommissioning requirements into the Industrial Revenue Bond (IRB) process.

The material included herein constitutes Public Works initial contribution to a future County-wide policy and may be subject to revision as our understanding of Renewable Energy Facility development and associated technologies evolve. The purpose of these standards is to:

- Protect the health, safety and welfare of Bernalillo County residents from adverse impacts associated with such development in unincorporated Bernalillo County, including but not limited to impacts on water resources, air quality, native vegetation, habitat, and wildlife corridors;
- Provide decision makers and the public with the information needed to understand development impacts;
- Provide a transparent and predictable process for applicants;
- Allow for the responsible development of renewable energy resources consistent with the character and needs of Bernalillo County; and
- Complement state and federal renewable energy policies and regulatory authority.

2.0 EXISITING REGULATORY FRAMEWORK

Applicable Regulation	Responsible Entity
Bernalillo County, NM Code Chapter 38 – Floods	BernCo Public Works
Bernalillo County, NM Code Chapter 30 - Water Conservation	BernCo Public Works
EPA National Pollutant Discharge Elimination System (NPDES): • Construction General Permit (CGP) • Municipal Separate Storm Sewer (MS4) Permit	US EPA
Fugitive Dust Control (NMAC 20.11.20) • Construction • Programmatic (for life of the project)	City of Albuquerque/ Bernalillo County Air Quality Division
Federal Endangered Species Act (ESA)	US Fish and Wildlife Service
New Mexico State Wildlife Conservation Act (NMSA 17-2-37 – 17-2-46)	NM Department of Game and Fish (wildlife) and NM Forestry Division (plants)
Bald and Golden Eagle Protection Act (BGEPA)	US Fish and Wildlife Service
Migratory Bird Treaty Act (MBTA)	US Fish and Wildlife Service

3.0 SUBMISSIONS

3.1 Special Use Permit Application (Baseline) – The following must be submitted to Public Works for review and approval with special use permit (SUP) applications for all solar and stand-alone battery energy storage facility projects.

3.1.1 Site plan. A detailed site plan by a licensed surveyor or engineer showing the location and dimension of all proposed facility components including, but not limited to, traffic access point(s) and internal circulation; panel and preliminary fencing layout; floodplains (with 50-foot buffer); substations; battery energy storage systems; operations buildings; access and transmission lines; proposed drainage ponds; pre-development topography and land features; existing constructed features; and easements. Provide general array design information, including space between rows (typical and minimum), space between panels, and maximum height for top and bottom of panels.

3.1.2 Conceptual Grading and Drainage Plan. Per the Bernalillo County Technical Standards, a graphic representation of existing conditions and a conceptual representation of proposed grading, drainage, flood control, stormwater quality, and erosion control information. It should be of sufficient detail to determine project feasibility. Refer to the Bernalillo County Public Works Stormwater Management Guidance in Large Scale Ground-Mounted Solar Arrays memo for design parameters.

3.1.3 Preliminary Drainage Report. Per the Bernalillo County Technical Standards, an analysis of drainage control, flood control, stormwater quality, and erosion control constraints on and impacts resulting from a proposed project is required. Must include analysis of offsite and onsite flows. Provide the methodology to be used for hydrologic analysis and assumptions about land treatment designations, pre-development and post-development flows and volumes by basin. Conceptual submission may rely on NRCS soils data, subject to revision upon obtaining geotechnical information. Include stormwater quality volume calculations. Refer to the Bernalillo County Public Works Stormwater Management Guidance in Large Scale Ground-Mounted Solar Arrays memo for design parameters.

3.1.4 Baseline site assessment. Documentation of existing site conditions, including soil survey data, vegetation inventory, photographic documentation, drainage patterns, and any existing improvements, to establish the Pre-Construction Condition and to inform Revegetation and Decommissioning requirements.

3.1.5 Traffic Scoping Report. Complete the Traffic Scoping Report in the SUP application for the expected trips to the site once all construction is completed. If the project has phases, provide the cumulative number of trips upon completion of each phase. In addition to the completed Traffic Scoping Report, provide the following supplemental information for site construction:

1) Approximate duration of construction
2) Estimated number of daily vehicle trips during construction
3) Estimated percentage of heavy vehicles during construction
4) Approximate number of oversized vehicle trips during construction

Based on this information, Public Works will determine offsite improvements that will be required upon building permit. Offsite improvement requirements will be shared with the applicant prior to CPC Hearing.

3.1.6 Agency consultation. Copies of correspondence or applications submitted to state and federal agencies, including the New Mexico Public Regulation Commission, the New Mexico Environment Department, the New Mexico Game and Fish Department, the U.S. Fish and Wildlife Service (if applicable), the U.S. Environmental Protection Agency, and the Federal Aviation Administration (as applicable).

3.2 Special Use Permit Application (Additional) –Utility scale solar development and community solar development with land disturbance exceeding **50 acres** are subject to additional special use permit submittal requirements. Public Works reserves the right to require these reports for any Community solar project under the acreage threshold if it is determined they may cause negative impacts to the County.

3.2.1 Environmental review. An environmental review prepared by a qualified professional that informs decision makers and the public of environmental effects and impacts, identifies ways to minimize adverse effects or impacts, and describes reasonable alternatives. It includes, but is not limited to, impacts to water resources (including surface water, groundwater, and irrigation systems), soil erosion and stormwater management, air quality, wildlife (including migratory birds, bats, and species listed under the federal Endangered Species Act and the New Mexico Wildlife Conservation Act), and vegetation. The review shall describe proposed mitigation measures for each environmental effect and impact identified. If the project has a federal nexus requiring review under the National Environmental Policy Act ("NEPA"), the applicant shall provide copies of all NEPA documentation.

3.2.2 Vegetation and Noxious Weed Management Plan. A plan for planting, establishing and maintaining perennial vegetated groundcover in all areas that were disturbed during construction. The plan should include, but is not limited to, the revegetation plan, best management practices to control noxious weeds, monitoring plan to identify if goals are being met, and commitment to follow adaptive management strategy to achieve goals.

3.2.3 Slope and soils analysis. Include site plan showing panel row orientation overlain on contours map. Show:

(a) Areas with 2-8%, 8-15%, and > 15% slopes,
(b) NRCS soil survey boundaries, with the basic data for the soil types, including hydrologic soil groups keyed off on plan
(c) 50 foot offset from the floodplain of all water courses and surface bodies of water
(d) Quantification and boundaries for any proposed cut and fill areas

3.2.4 Water Resource Plan. Document demonstrating that the Applicant holds valid water rights as administered by the New Mexico Office of the State Engineer or has entered into a lawful water supply agreement. The application shall include an analysis of the facility's projected water consumption over the permit term, identify the source and legal basis for water use, and assess potential impacts on existing water rights holders and domestic wells within one (1) mile. The

County Planning Commission may require consultation with the Office of the State Engineer as a condition of approval.

3.3 After Special Use Permit Approval (Baseline)

3.3.1 Final Grading and Drainage Plan. Per the Bernalillo County Technical Standards and Stormwater Management Guidance in Lage Sale Ground-Mounted Solar Arrays, Applicant must reference a project-specific revegetation plan on the grading and drainage plan.

3.3.2 Final Drainage Report. Per the Bernalillo County Technical Standards and Stormwater Management Guidance in Lage Sale Ground-Mounted Solar Arrays, Applicant must submit a completed drainage report informed by the results of the geotechnical investigation.

3.3.3 Soils Reports. Per the Guidance in Large Scale Ground-Mounted Solar Arrays, Applicant must submit soil testing results to support hydrology calculations such as gradation analysis, bulk density, in-situ infiltrometer test, as needed.

3.3.4 CGP SWPPP. Per US EPA requirements, Applicant must clearly identify areas to be protected during construction, such as floodplain buffers, critical habitat areas, and areas with excessive slopes.

3.3.5 Fugitive Dust Control Permit. Applicant must submit documentation of application for a construction fugitive dust control permit with City of Albuquerque Environmental Health Department. Upon completion of construction, provide documentation that the facility is covered under a programmatic fugitive dust control permit.

***3.4 After Special Use Permit Approval (Additional)* -**Utility scale solar development and community solar development with land disturbance exceeding **50 acres**

3.4.1 Biological assessment (BA). Field-based assessment, as defined by the New Mexico State Land Office (NMSLO) Natural Resource Protection Standards for Solar and Wind Leases.

4.0 DEVELOPMENT STANDARDS

4.1 Existing Design Standards used by Bernalillo County

1. Bernalillo County Public Works Stormwater Management Guidance in Large Scale Ground-Mounted Solar Arrays
2. Bernalillo County Public Works Technical Standards
3. Bernalillo County Green Stormwater Infrastructure/Low Impact Development (GSI/LID) Standards
4. (Draft) Bernalillo County Revegetation Specification (1014)
5. New Mexico State Land Office (NMSLO) Natural Resource Protection Standards for Solar and Wind Leases (available upon request)

4.2 Grading Minimization

Array design must fit landforms rather than manipulating landforms to fit arrays. Mass grading is not acceptable for post and panel placement. Grading is permissible where necessary to construct roads, building pads, battery energy storage areas, drainage ponds and associated stormwater conveyance infrastructure. Minor grading of limited areas within the array design, not to exceed three quarters (.75) of an acre each, may be considered for approval with a justification request. The frequency of these allowable limited areas will be project specific. Refer to the Bernalillo County Stormwater Management Guidance in Large Scale Ground-Mounted Solar Arrays document for more information on general grading approach.

4.3 Existing Vegetation Protection

Applicants shall use low impact development techniques to minimize vegetation removal and soil compaction. Mass grading is not allowed. BMPs include, but are not limited to:

a. limit vegetation removal to the areas stipulated in Section 4.2,
b. use equipment with more tires and wider tires, or tracks, to distribute the weight of the vehicle,
c. confine equipment traffic to pre-planned, single-track pathways to minimize total ground footprint,
d. protect areas that are not under construction.

4.4 Revegetation

Areas where vegetative cover has been removed must be revegetated, as described in Bernalillo County Stormwater Management Guidance in Large Scale Ground-Mounted Solar Arrays. Developers must provide a Revegetation and Noxious Weed Control Plan, as described in Section 3.2.2. Revegetation plans must reference the Bernalillo County Revegetation Specification (1014), or approved equal, and include species that provide pollinator forage. Additionally, maintenance should consider best management practices to protect pollinator species, such as seasonally appropriate mowing and limited herbicide use. Areas that are not successfully revegetated after three years must be reseeded. Operators are required to maintain fugitive dust control and stormwater quality BMPs until vegetation is established.

4.5 Wildlife

Bernalillo County has adopted the principles for sustainable solar development described in the NMSLO **Natural Resource Protection Standards for Solar and Wind Leases**. Solar developers must provide a Biological Assessment (BA), as defined by the NMSLO Standards, and use the process and timeline described therein. Improvements must avoid interference with wildlife corridors and environmentally sensitive areas and must mitigate harm to migratory birds. Applicants will coordinate with Bernalillo County to incorporate information from adjacent proposed solar developments into wildlife corridor studies.

4.6 Fencing

Fencing design shall be informed by the results of the Biological Assessment. In general, wildlife friendly fencing should be constructed to allow for some wildlife permeability. Leaving adequate clearance to allow for passage below the fence, and/or unfenced wildlife passageways a minimum of 300’ wide for every mile of fence must be considered. Perimeter fencing should be angled at perimeter and corridor corners to encourage wildlife movement. Fencing shall not be constructed across floodplains and construction across pre-existing concentrated flow paths shall be avoided where possible. Operations and Maintenance plans should include guidance for regular inspections to check for trapped animals.

Concurrence:
Elias Archuleta, Deputy County Manager of Public Works

Attachment A: Precedent for Solar Policy in the State of New Mexico

This summary focuses on domains related to special reports, environmental impacts, decommissioning and financial assurances – the existing codes and policies in this table address a broader scope of renewable energy development impacts, including visual impact, noise, economic impact, community outreach, fire safety, etc.

Jurisdiction	Requirement
Santa Fe County - Sustainable Land Development Ordinance	
Sec. 6.1.3	• Required studies, reports and assessments (SRAs)
Sec. 6.2.1	• Applicant leaves a deposit to cover expense in reviewing SRAs
Sec. 6.3	• Environmental Impact Reports requirements
Sec. 10.25.3 *Community Solar Facilities*	• Design Standard • Documentation of State approval • Decommissioning + Financial Assurance
Doña Ana County - Unified Development Code of the County of Doña Ana County	
Sec 350-502(H) *Community Solar Facilities*	• Requirements to minimize impact on neighboring properties • Detailed Site Plan, grading and drainage plan, SWPP • Documentation of State approval • Remediation and Decommissioning Plan + Financial Assurance
Sec. 350-502(I) *Renewable Energy Facilities*	• Same standards as Community Solar • Exception if no site, infrastructure improvements or state permit
Luna County - Luna County Community and Commercial Energy Project Policy for Cond, and SU Permits	
Sec. 6.1	• Plan of development addressing risks and environmental effects
Sec. 6.2	• Project narrative includes economic impact and standards + codes
Sec. 6.3	• Site plan
Sec. 6.4	• Decommissioning narrative with threat of lien or judgement
Otero County Draft Renewable Facility Ordinance (No. 26-02)	
Sec. 7.2	• Application Contents (Environmental assessment, decommissioning plan and financial assurance, etc.)
Sec. 7.4	• Third party review of technical components paid by escrow
Section 10 *Development Standards for Solar*	• Ground cover and erosion control • Water use • Water resources
Sec 11A *Development Standards for BESS*	• Safety • Decommissioning
Sec 12 *Decom. and Financial Assurance*	• Decommissioning Plan • Financial Assurance
Valencia County Code of Ordinances	
Sec. 154.156 *Natural Resources Overlay Zone*	• Reclamation plan • Financial security for dismantling, removal and reclamation
Solar Field Overlay Zone (SFOZ)	• Project-specific Special Use Overlay Zone (SU-1)
New Mexico State Land Office – Natural Resource Protection Standards for Solar and Wind Leases	
Sec. 2	• Biological Assessment
Appendix B	• Survey and Review Protocols

Attachment B: Suggested Decommissioning and Escrow Criteria

The following is sample language from Otero County and is typical of other counties in New Mexico.

Decommissioning Plan

Every application shall include a Decommissioning Plan addressing:

(a) A description of the work required to fully Decommission the facility and restore the site to its Pre-Construction Condition;

(b) An estimated timeline for Decommissioning, not to exceed twelve (12) months from the date Decommissioning is triggered;

(c) An itemized cost estimate, prepared by a licensed professional engineer, for removal of all facility components (including foundations to a depth of thirty-six (36) inches and site restoration, including salvage value offset not to exceed twenty-five percent (25%) of gross removal costs;

(d) Identification of any hazardous materials on site and procedures for their safe removal and disposal; and

(e) Evidence that the landowner (if different from the Applicant) has been informed of and consented to the Decommissioning Plan.

Financial Assurance

*(a) **Amount.** The Applicant shall provide Financial Assurance in an amount equal to one hundred twenty-five percent (125%) of the net Decommissioning cost estimate (gross cost less permitted salvage value offset). The County Engineer may retain a third-party engineer, at the Applicant's expense, to review and verify the cost estimate.*

*(b) **Acceptable instruments.** Financial Assurance shall be in one or more of the following forms: (1) an irrevocable standby letter of credit from a federally insured financial institution rated at least A- by a nationally recognized rating agency; (2) a surety bond issued by a company authorized to do business in New Mexico and rated at least A- by A.M. Best; (3) a cash escrow held in a federally insured account with the County named as beneficiary; or (4) another form approved by the Board.*

*(c) **Periodic adjustment.** The Decommissioning cost estimate and Financial Assurance amount shall be reviewed and, if necessary, adjusted every five (5) years, or upon permit transfer, whichever occurs first. The adjustment shall account for changes in removal costs, equipment condition, and salvage values. If an adjustment results in an increase in the required Financial Assurance, the Permittee shall provide the additional assurance within ninety (90) days of notice.*

*(d) **Release.** Financial Assurance shall not be released until the County Manager certifies that Decommissioning has been completed in accordance with the approved Decommissioning Plan and the site has been restored to the satisfaction of the County.*

Alternatively, Planning and Development Services could adopt language such as that used by Luna County in Conditions of Approval for the special use permit.

If the Permittee fails to timely complete decommissioning or reclamation, the property owner or County may complete decommissioning or reclamation at the expense of the Permittee, enforceable by lien or judgment against the Permittee and revocation of any other permits held by such Permittees.

Third Party review

At time of application for the Special Use Permit the applicant shall deposit Twenty-Five Thousand Dollars ($25,000.00) in an escrow account maintained by the County to cover the County's costs for third -party technical, environmental, and legal review. Any unused portion of the escrow deposit shall be returned to the applicant within sixty (60) days of the Board's final decision; any shortfall shall be billed to and paid by the applicant before a permit is issued. The escrow deposit is intended to recover the County's actual costs of reviewing the application and are not revenue-generating measures.

The County Engineer may retain qualified third-party consultants, at the Applicant's expense from the escrow deposit to review any technical component of the application, including the environmental assessment, decommissioning cost estimate, or financial assurance. If the cost of third-party review exceeds the escrow deposit, the Count Engineer shall notify the Applicant in writing, and the Applicant shall deposit the additional amount within thirty (30) days. Failure to fund additional escrow shall toll all application review deadlines until payment is received.

Signature: 

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BernCo PW Submittals and Standards for Solar Development

Final Audit Report 2026-08-07

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