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| **√** | **Consistent with Appendix B.5.3 of the Western Solar Plan, the BLM will consider the following factors, as appropriate, when evaluating ROW applications in variance areas:** |
|  | 1. The availability of lands in an SEZ that could meet the applicant’s needs, including access to transmission.
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|  | 1. Documentation that the proposed project will be in conformance with decisions in current land use plan(s) (e.g., visual resource management class designations and seasonal restrictions) or, if necessary, represents an acceptable proposal for a land use plan amendment.
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|  | 1. Documentation that the proposed project will be consistent with priority conservation, restoration, or adaptation objectives in the best available landscape-scale information (e.g., landscape conservation cooperatives, rapid ecological assessments, and state and regional-level crucial habitat assessment tools [CHATs]).
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|  | 1. Documentation that the proposed project can meet applicable programmatic design features adopted in the Western Solar Plan ROD (See Western Solar Plan ROD, Appendix A, Section A.4.1).
 |
|  | 1. Documentation that the applicant has coordinated with state and local (county or municipal) governments, including consideration of consistency with officially adopted plans and policies (e.g., comprehensive land use plans, open space plans, and conservation plans) and permit requirements (e.g., special use permits).
 |
|  | 1. Documentation of the financial and technical capability of the applicant, including, but not limited to, the following:
* International or domestic experience with solar energy projects on either Federal or nonfederal lands; and
* Sufficient capitalization to carry out development, monitoring, and decommissioning, including the preliminary study phase of the project and the environmental review and clearance process.
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|  | 1. Documentation that the proposed project is in an area with low or comparatively low resource conflicts and where conflicts can be resolved (as demonstrated through many of the factors that follow).
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|  | 1. Documentation that the proposed project will optimize the use of existing roads.
 |
|  | 1. Documentation that the proposed project will optimize the capacity of existing and new transmission infrastructure and avoid duplication in the use of or need for existing and new transmission and transmission interconnection facilities.
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|  | 1. Documentation that the proposed project will make efficient use of the land considering the solar resource, the technology to be used, and the proposed project layout.
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|  | 1. If applicable, documentation that the proposed project will be located in an area identified as suitable for solar energy development in an applicable BLM land use plan or by another related process such as the California DRECP (e.g., Development Focus Areas) or Arizona Restoration Design Energy Project (e.g., Renewable Energy Development Areas).
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|  | 1. If applicable, special circumstances associated with an application such as an expansion or repowering of an existing project or unique interagency partnership.
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|  | 1. If applicable, opportunities to combine Federal and nonfederal lands for optimum siting (e.g., combining BLM-administered land with adjacent previously disturbed private lands).
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|  | 1. If applicable, documentation that the proposed project will be located in, or adjacent to, previously contaminated[[1]](#footnote-1) or disturbed lands such as brownfields identified by the [EPA’s RE-Powering America’s Land Initiative](http://www.epa.gov/renewableenergyland) or State, local or Tribal authorities; mechanically altered lands such as mine-scarred lands and fallowed agricultural lands; idle or underutilized industrial areas; lands adjacent to urbanized areas or load centers; or areas repeatedly burned and invaded by fire-promoting non-native grasses where the probability of restoration is determined to be limited. Preference will be given to proposed projects that are located in, or adjacent to, previously contaminated or disturbed lands under the variance process, assuming all other factors are adequately considered.
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|  | 1. Documentation that the proposed project will minimize adverse impacts on access and recreational opportunities on public lands (including hunting, fishing, and other fish- and wildlife-related activities).
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|  | 1. Documentation that the proposed project will minimize adverse impacts on important fish and wildlife habitats and migration/movement corridors (e.g., utilizing the Western Wildlife CHAT, administered by the [Western Governor’s Wildlife Council](http://www.westgov.org/initiatives/wildlife/380-chat) and coordinating with state fish and wildlife agencies).
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|  | 1. Documentation that the proposed project will minimize impacts on lands with wilderness characteristics and the values associated with these lands (e.g., scenic values, recreation, and wildlife habitat).
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|  | 1. Documentation that the proposed project will be designed, constructed, and operated to optimize their specific generation technology’s efficiencies with respect to water impacts.
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|  | 1. Documentation that any groundwater withdrawal associated with a proposed project will not cause or contribute to withdrawals over the perennial yield of the basin, or cause an adverse effect on ESA-listed or other special status species or their habitats over the long term. However, where groundwater extraction may affect groundwater-dependent ecosystems, and especially within groundwater basins that have been over appropriated by state water resource agencies, an application may be acceptable if commitments are made to provide mitigation measures that will provide a net benefit to that specific groundwater resource over the duration of the project. Determination of impacts on groundwater will likely require applicants to undertake hydrological studies using available data and accepted models.
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|  | 1. Documentation that the proposed project will not adversely affect lands donated or acquired for conservation purposes, or mitigation lands identified in previously approved projects such as translocation areas for desert tortoise.
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|  | 1. Documentation that significant cumulative impacts on resources of concern should not occur as a result of the proposed project (i.e., exceedance of an established threshold such as air quality standards).
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|  | 1. Desert Tortoise
* Designated desert tortoise conservation areas are excluded from the BLM’s proposed Solar Energy Program. These areas include, but are not limited to, critical habitat for desert tortoise and specially designated areas such as BLM designated ACECs that specifically identified desert tortoise as one of the Relevant and Important Values, National Parks, National Recreation Areas, and NWRs (see Western Solar Plan ROD, Appendix A, Table A-2).
* The USFWS has identified certain other areas that may be important for desert tortoise connectivity (i.e., priority desert connectivity habitat). Recovering desert tortoises throughout their range requires that conservation areas be connected by habitat linkages in which tortoises reside and reproduce. Such areas will need to be free of large-scale impediments from anthropogenic activities. The BLM has excluded from the Solar Energy Program approximately 515,000 acres (2,084 km2) of land that coincides with priority desert tortoise connectivity habitat (see Western Solar Plan ROD, Appendix A, Table A-1, Exclusion #32).
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|  | 1. Maps and supporting information regarding priority desert tortoise connectivity habitat are available through the Western Solar Plan project Web site .[[2]](#footnote-2) Developers that propose utility-scale solar energy projects in variance areas that overlap priority desert tortoise connectivity habitat identified on USFWS maps will be required to meet with the BLM and USFWS early in the process as part of the previously mentioned preliminary meetings to receive instructions on the appropriate desert tortoise survey protocols and the criteria the BLM and USFWS will use to evaluate results of those surveys (see outline below). Applicants will be required to work with the BLM and USFWS to survey an appropriately sized area (which may be three to four times larger than the proposed project area) in an attempt to find a suitable project location or configuration that minimizes impacts on desert tortoises. The BLM and USFWS will discourage applications in the highest priority areas, given the anticipated high conflict, higher survey costs, and high mitigation requirements. The survey and data collection activities outlined below will facilitate the assessment of site-specific data and ground-truthing of the information provided in the USFWS map to determine whether a site is an acceptable location for utility-scale solar energy development.
* Tortoise density and distribution surveys. Desert tortoise density and distribution surveys will be conducted consistent with [approved survey protocols](https://www.fws.gov/library/collections/mojave-desert-tortoise-surveyor-information) and will be conducted by USFWS approved desert tortoise authorized biologists unless the USFWS [determines authorized biologists are unnecessary.](https://www.fws.gov/library/collections/mojave-desert-tortoise-surveyor-information) The spacing and intensity of surveys will be determined in consultation with the BLM and USFWS. Two consecutive survey passes of the potential project development area will be required; the orientation of the second survey pass will be determined in consultation with BLM and USFWS to determine the best orientation based on factors such as topography and glare. Once a refined project site has been selected within the larger survey area, additional surveys could be recommended to ensure effective avoidance of desert tortoises.
* Habitat quality analyses. Evaluate the presence and condition of native vegetation communities (including herbaceous plants), soils, and so forth in the survey area.
* Tortoise connectivity studies. The methodologies for connectivity studies must be approved by the BLM and USFWS and peer reviewed by an accredited scientist prior to data collection. A first study should demonstrate that the linkage area and adjacent Tortoise Conservation Areas (TCAs) contain suitable tortoise habitat of sufficient size to support desert tortoise populations. If sufficient habitat is present, a second study should demonstrate that demographic and genetic connections can be maintained once the proposed project is developed. This should include evaluating existing barriers to connectivity and opportunities for tortoise-to-tortoise interactions at a local and regional scale and the availability of “live-in habitat.”
* Corridor width evaluation. Using the site-specific data collected, including desert tortoise density and distribution (from protocol surveys), habitat quality analysis, and the desert tortoise connectivity evaluation, an applicant should identify corridors that will adequately maintain the connectivity around the proposed project. Such corridors must be approved by the BLM and USFWS.
* Survey for areas suitable for tortoise translocation, if applicable.

In evaluating information provided by an applicant, the BLM and USFWS will consider cumulative effects and landscape-level information consistent with desert tortoise recovery goals and objectives and best available science to determine if a project will result in acceptable impacts on desert tortoise. The applicant must provide documentation to the satisfaction of the BLM and USFWS of the following, unless a project is otherwise determined by the BLM and USFWS to have acceptable impacts on desert tortoise:* The project can be sited and constructed to allow for adequate connectivity corridors as determined by the BLM and USFWS that ensure that the project does not isolate or fragment tortoise habitat and populations;
* The proposed site contains low tortoise densities consistent with the best available information for the subject geographic area, including data on local desert tortoise densities, when available, and data from the long-term USFWS range-wide monitoring of the Mojave Population of the [desert tortoise;](https://www.fws.gov/project/mojave-desert-tortoise-range-wide-monitoring-project) - The project will result in minimal translocation of adult and sub-adult tortoise to acceptable locations (>160 mm Midline Carapace Length) as determined by the BLM and USFWS;[[3]](#footnote-3)
* Any necessary mitigation will improve conditions within the connectivity area, and if these options do not exist, necessary mitigation will be applied toward the nearest tortoise conservation area (e.g., an ACEC for which tortoise had been identified in the Relevant and Important Criteria or critical habitat); and
* A plan is in place to effectively monitor desert tortoise impacts, including verification that desert tortoise connectivity corridors are functional. The required ESA consultation will further define this monitoring plan.
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|  | 1. Greater Sage-Grouse
* Greater sage-grouse habitat (i.e., currently occupied, brooding, and winter habitat) as identified by the BLM in California, Nevada, and Utah will be excluded from BLM’s proposed Solar Energy Program (see Section 2.2.2.1 of the Final Western Solar Plan).
* Developers that propose utility-scale solar energy projects in variance areas that overlap the range of the greater sage-grouse will be required to provide documentation of the following, unless a project is otherwise determined by the BLM and USFWS and appropriate state wildlife agencies to have acceptable impacts on greater sage-grouse:[[4]](#footnote-4)
	+ Project is at least 4 mi (6 km) from the nearest lek;
	+ Project will not adversely affect Preliminary Priority Habitat; and
	+ Project will be mitigated through land acquisition or habitat enhancement at a ratio of at least 1:1 for any impact on Preliminary General Habitat as determined by accepted standards of habitat analysis (e.g., habitat equivalency analysis [HEA]) and in coordination with the USFWS and the appropriate state wildlife agencies.
* Protecting Resources and Values of Units of the National Park System and Other Special Status Areas under National Park Service Administration.

The construction and operation of utility-scale solar energy projects and related transmission infrastructure near units of the National Park System and other special areas administered by the NPS, including National Historic Trails, may significantly affect park programs, resources, and values. For example, ecological resources (such as habitat and migration of species) and physical resources (such as wind, water, air, and scenic views) cross park boundaries, and park boundaries often do not represent all of the natural resources, cultural sites, and scenic vistas that make up resources and the quality of the park visitor’s experience in these special places.The NPS has identified areas within the proposed variance areas where utility-scale solar energy development poses a high potential for conflict with the natural, cultural, or visual resources administered by the NPS. The BLM has excluded from the Solar Energy Program approximately 821,000 acres (3,322 km2) of land that coincides with NPS-identified areas of high-potential conflict (see Western Solar Plan ROD, Appendix A, Table A-1, Exclusion #32).Maps and data documenting areas of high-potential conflict with National Parks, historic trails, and other areas under NPS administration are available through the [Western Solar Plan project Web site](http://solareis.anl.gov).[[5]](#footnote-5) This information will promote public awareness and notify industry where additional documentation may be required to proceed with an application in variance areas. The maps and data are regarded as a first-order approximation of landscape-scale conditions and potential resource conflict and will be updated as new information and analytical tools are developed.The BLM will utilize these maps and data in the screening of proposed solar energy projects in variance areas. In cases where a utility-scale solar energy development ROW application is submitted in a variance area identified as having a high potential for conflict with the resources of a unit of the National Park System or special areas administered by the NPS, additional documentation will be required. This documentation may include information to verify any or all of the following potential resource conditions resulting from the proposed project:* + Increased loading of fine particulates (criteria pollutants: PM2.5 and PM10 [particulate matter with a diameter of 2.5 µm or less and 10 µm or less, respectively]) and reduced visibility in Class I and sensitive Class II areas;
	+ Vulnerability of sensitive cultural sites and landscapes, loss of historical interpretative value due to destruction or vandalism;
	+ Altered frequency and magnitude of floods, and water quantity and quality;
	+ Reduced habitat quality and integrity and wildlife movement or migration corridors, increased isolation and mortality of key species;
	+ Fragmentation of natural landscapes;
	+ Diminished wilderness, scenic viewsheds, and night-sky values on landscapes within and beyond boundaries of areas administered by the NPS; and
	+ Diminished cultural landscape qualities within and beyond boundaries administered by the NPS.

The documentation provided by an applicant must be sufficiently detailed as determined by the BLM and NPS. The documentation should represent the findings of science and the analyses of scientifically trained specialists in the appropriate natural, visual, or cultural resource disciplines. The NPS will prepare a response to the BLM regarding (1) whether the proposed project meets NPS protection, conservation, or restoration objectives; and (2) whether the resource conflict documentation is adequate to support a finding by the NPS and BLM that the proposed project is likely to avoid a high potential for conflict with resources and values associated with a National Park or other special status area under the administration of the NPS.The NPS will continue to refine data for determining resource conflict and provide this information to the BLM for use in the variance process. The NPS will assist the BLM in identifying alternate project locations if there is insufficient information to verify potential resource conflict with sensitive resources and values of National Park and other NPS special status areas. In all cases, evaluations will be performed to ensure that natural, visual, and cultural resources of units of the National Park System and other special areas administered by the NPS are protected. |

1. EPA and other parties have or will continue to characterize and cleanup these sites to ensure they are protective for people. [↑](#footnote-ref-1)
2. The USFWS expects to update its map of priority connectivity habitat to reflect new information about desert tortoise connectivity habitat. The USFWS will make these map updates available through the [Western Solar Plan project Web site](http://solareis.anl.gov). These updates to USFWS maps will provide the public with current information regarding USFWS and BLM considerations under the variance process. Any amendment of applicable land use plans, including a decision by the BLM to exclude additional lands from future solar energy development, would follow compliance with all applicable BLM land use planning procedures. [↑](#footnote-ref-2)
3. For additional information on the criteria the USFWS will use to assess impacts on [desert tortoise and desert tortoise connectivity habitat](https://www.fws.gov/program/desert-tortoise-recovery). [↑](#footnote-ref-3)
4. Preliminary Priority Habitat (PPH) comprises areas that have been preliminarily identified as having the highest conservation value to maintaining sustainable greater sage-grouse populations. These areas would include breeding, late brood-rearing, and winter concentration areas. Preliminary General Habitat (PGH) comprises areas of occupied seasonal or year-round habitat outside of priority habitat. PPH and PGH have been preliminarily identified by the BLM in coordination with respective state wildlife agencies (BLM 2011c). [↑](#footnote-ref-4)
5. Maps and data document areas of high potential for conflict with sensitive natural and cultural resources near 33 National Parks and one National Historic Trail. The NPS intends to update its maps and data to reflect new information regarding potential conflicts associated with units of the National Park System and other special areas administered by the NPS. The NPS will make updated maps and data available through the [Western Solar Plan project Web site](http://solareis.anl.gov). These updates to NPS maps and data will provide the public with current information regarding NPS and BLM considerations under the variance process. Any amendment of applicable land use plans, including a decision by the BLM to exclude additional lands from future solar energy development, would follow compliance with all applicable BLM land use planning procedures. [↑](#footnote-ref-5)