

# Renewable Energy on Federal Public Lands

## BLM Initiatives and the Value of Regional Planning

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**M**any of the nation's areas with high potential for wind and solar energy development are on federal public lands managed by the U.S. Department of the Interior (DOI) through the Bureau of Land Management (BLM). In line with the Biden administration's government-wide goal to address climate change by building out a robust renewable energy infrastructure by 2030, BLM has focused several recent initiatives on incentivizing wind and solar development on public lands. These policy changes, rulemakings, and planning efforts come at a time of increased challenges to siting renewables on both public and private lands. Yet, while BLM's new Renewable Energy Rule largely addresses the economics of renewable energy development, it does not tackle the growing siting challenges and local public opposition to utility-scale wind and solar projects, and it does little to incentivize projects in areas that are better suited environmentally and with respect to other uses and values, i.e., "low-conflict" areas. BLM's contemporaneous new solar energy planning effort is intended to identify such areas, but likely will maintain tremendous acreage available for applications, deferring the necessary step of identifying the most optimal locations until review of project proposals. BLM will need to continue to seek robust public and cross-agency engagement to ensure thorough analyses and avoid having decisions mired in litigation. Those efforts could be bolstered by additional regional planning efforts.

BLM is responsible for managing 245 million surface acres of federal public land, mainly in 11 western states and Alaska. Much of BLM's work is guided by the Federal Land Policy and Management Act (FLPMA), which expresses a national policy that public lands be managed "in a manner that will protect the quality" of natural and cultural resource values, and at the same time "recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands" and ensures

that the government receives "fair market value of the use of the public lands and their resources." 43 U.S.C. § 1701. The FLPMA further describes this management approach as based on "principles of multiple use and sustained yield." *Id.* The act requires the preparation of land use plans to guide decision-making by land managers and steer authorized uses to the most appropriate areas—and away from areas that present greater conflicts with other resource values (e.g., wildlife, cultural, scenic) and uses. *Id.* § 1712. One of the many uses of the public lands that the act authorizes is the granting of rights-of-way (ROW)—traditionally for access roads, transmission lines, pipelines, and communication towers, and in more recent decades, for solar and wind energy development projects. *Id.* § 1761.

### Trends in Renewable Energy Development on Public Lands

Interest in renewable energy development has grown tremendously as the United States has sought to reduce its dependence on fossil fuels. From 1982 through 1999, BLM authorized 21 wind energy development projects (totaling 250 megawatts (MW)) on public lands. BLM, *Wind Energy Project Info., Project List Wind* (Oct. 2021). BLM approved six wind energy projects (totaling 139 MW) during the years 2000–2008, seven (totaling over 1,000 MW) during 2009–2016, and two (including one that dwarfs the others at 1,500 MW) during 2017–2020. The projects have increased in size over time: Before 2010 the average wind project capacity was 14 MW; the average size of projects approved since 2010 is 20 times larger, at 295 MW. *Id.* One wind project (1,000 MW) is currently undergoing National Environmental Policy Act (NEPA) review of its potential environmental effects, while another proposal (600 MW) is in preliminary review. BLM, *Active Renewable Projects* (Apr. 2024).

For solar energy development, BLM reports 23 projects approved during the years 2010–2016 (3,474 MW total), 11

during 2017–2020 (2,355 MW), eight in 2021 (1,877 MW), and seven in 2022 (1,566 MW). BLM, Solar Energy Project Info., *Project List Solar* (FY2022). BLM has approved eight solar projects totaling 1,406 MW since 2021, with 13 more (totaling approximately 11,800 MW) undergoing NEPA review and 10 (totaling 4,475 MW) in preliminary review. BLM, *Active Renewable Projects*, *supra*. In its November 2023 report to Congress, BLM identified 41 solar projects in the queue for review during fiscal years 2023 through 2027.

On April 11, 2024, BLM announced that it had surpassed the DOI's goal of permitting 25,000 MW (25 gigawatt (GW)) of renewable energy infrastructure on public lands by 2025. The same day, BLM announced that it had finalized the new Renewable Energy Rule, which it asserts will lower “the cost of developing solar and wind projects, improve renewable energy project application processes, and incentivize developers to continue responsibly developing solar and wind projects on public lands.” Press Release, BLM, Biden-Harris Administration Delivers Historic Milestones, New Actions for Clean Energy on Public Lands (Apr. 11, 2024).

## Past Efforts to Streamline and Focus Renewable Project Permitting

In the Energy Policy Act of 2005, Congress set a 10,000 MW goal for renewable energy projects on public land. Subsequently, BLM undertook several planning initiatives to support renewable energy development (particularly wind and solar) on public lands. In 2006, BLM published a Record of Decision for a Wind Energy Development Programmatic Environmental Impact Statement (PEIS), which amended individual BLM land use plans and established policies and best management practices for wind energy development. In 2012, BLM and the Department of Energy completed a broad planning effort for BLM lands with solar potential in six southwestern states. This Western Solar Plan identified priority areas for utility-scale solar energy development, known as Solar Energy Zones, with high solar potential and lower potential for conflicts with resources and other uses. The plan also identified “variance areas,” where projects were not prioritized but could be considered, and “exclusion areas” unavailable for solar energy development. BLM anticipated that because the in-depth NEPA analysis in the Solar PEIS could inform analysis of projects in Solar Energy Zones, development in those priority areas would be incentivized relative to projects in variance areas. In 2013, BLM completed the Restoration Design Energy Project, which identified additional preferred areas for renewable energy development on public lands in portions of Arizona.

While the intent of the Western Solar Plan was to streamline permitting in priority areas, projects encountered considerable delays resulting from litigation. Both wind and solar energy development projects faced opposition from nongovernmental organizations and Native American tribes based on the potential for harm to birds and other wildlife, loss of habitat, and threats to cultural resources. Nathaniel Logar, *When the Fast Track Hits the Off Ramp: Renewable Energy Permitting and Legal Resistance on Western Public Lands*, 27 *Colo. Nat. Res., Energy & Env't L. Rev.* 361 (2016). A Stanford University study

of 355 major energy and infrastructure projects under federal review between 2010 and 2018 found that nearly two-thirds of solar projects were litigated, as were 38% of wind energy projects and 31% of transmission line projects. Michael Bennon & Devon Wilson, *NEPA Litigation over Large Energy and Transport Infrastructure Projects*, 53 *Env't L. Rep.* 10836 (2023).

## The collaborative effort used to develop the Desert Renewable Energy Conservation Plan appears to have successfully curbed litigation delays.

In 2016, BLM completed the Desert Renewable Energy Conservation Plan (DRECP), to manage 22.5 million acres in southern California for conservation and renewable (largely solar) energy development. The DRECP was the product of close collaboration between BLM and the California Energy Commission, the California Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service and had dual goals: to allow for streamlined development of utility-scale renewable energy generation and transmission in the planning area and, at the same time, provide for appropriate conservation and management of special-status species, vegetation communities, and other physical, cultural, scenic, and social resources over the long term. The plan uses a three-tiered system, similar to the Western Solar Plan: off-limits conservation areas (13 million acres), Development Focus Areas (388,000 acres, anticipated to be capable of supporting 27,000 MW of generation), and Variance Process Lands (40,000 acres). Projects can be considered for Variance Process Lands but do not benefit from the streamlined review available for Development Focus Areas and must comply with specific conservation and management actions. In January 2021, the Trump administration issued a draft amendment to the DRECP that would have modified protections for conservation areas and made more lands available for solar energy development. The proposal drew tremendous public opposition, and the Biden administration withdrew it shortly after taking office. Dep't of Interior, List of Programs Eligible for Inclusion in Funding Agreements, 86 *Fed. Reg.* 14,152 (Mar. 12, 2021).

The collaborative effort used to develop the DRECP appears to have successfully curbed litigation delays. On April 11, 2024, BLM announced that the first two solar projects developed under the DRECP—both approved in 2021—are fully operational. Press Release (Apr. 11, 2024), *supra*.

Until 2016, BLM managed wind and solar energy development through the existing ROW regulations and a series of ad hoc guidance documents. In 2016 BLM promulgated new

regulations to better structure its decision-making and prioritize wind and solar projects in low-conflict areas. The rule adopted a “competitive” leasing program for “Designated Leasing Areas” (which included Solar Energy Zones, Development Focus Areas, and other priority areas) and established a structure for acreage rent and capacity fees intended to meet FLPMA’s fair-market-value requirement. BLM, *Competitive Processes, Terms, and Conditions for Leasing Public Lands*, 81 Fed. Reg. 92,224 (Dec. 19, 2016).

## A recent survey of utility-scale wind and solar developers found that approximately one-third of wind and solar applications in the last five years were canceled.

For these priority areas, the rule required BLM to offer lands through a competitive bidding process before it could consider a “non-competitive” application (accepted and reviewed without bidding) for lands in those areas. Leases in Designated Leasing Areas were not guaranteed, however; appropriate environmental studies, site evaluation work, and public involvement were still required before BLM offered lands for competitive leasing. But BLM anticipated the analysis of proposals in priority areas would benefit from the planning-scale analysis that had identified their reduced potential for conflicts and included consideration of appropriate mitigation for remaining impacts.

Conversely, applications for solar or wind energy development ROW grants outside of priority areas were assigned high, medium, or low priority for processing based on multiple factors, including whether the lands had been identified as suitable for development, whether the area had previously been disturbed, and the presence of sensitive resources. The rule also directed BLM to “generally prioritize” its processing of leases in priority areas over review of applications outside those areas. Through this structure, BLM sought to encourage development in low-conflict areas. The rule required BLM to hold a public meeting in the affected area before processing an application for a nonpriority site, which allowed for early public involvement and screening of the project to identify challenging issues before BLM prepared its NEPA analysis of the proposal.

In the Energy Act of 2020, Congress set a goal for the DOI to “issue permits that, in total, authorize production of not less than 25 [GW] of electricity from wind, solar, and geothermal energy projects by not later than 2025.” Congress also authorized the DOI to reduce acreage rental rates and capacity fees, or both, for existing and new wind and solar authorizations

if “necessary to promote the greatest use of wind and solar energy resources.” President Biden’s Executive Order on Tackling the Climate Crisis at Home and Abroad, issued on January 27, 2021, instructed the DOI to “review siting and permitting processes” to identify steps to “increase renewable energy production” on public lands. Responding to these directives, in 2022, BLM revised its rental policy to reduce acreage rents and capacity fees for wind and solar energy development ROWs. *BLM Manual Section 2806–Rent*, ch. 6 (May 26, 2022).

## Increasing Community Opposition

A recent survey of utility-scale wind and solar developers found that approximately one-third of wind and solar applications in the last five years were canceled. Survey respondents identified local ordinances and community opposition among the top three causes of project cancellation (grid interconnection was second). Berkeley Lab, *Survey of Utility-Scale Wind and Solar Developers*, Energy Mkts. & Pol’y (Jan. 2024). Community opposition also accounted for significant project delays and cost increases. This local resistance primarily concerned visual effects, changes in community character and property values, noise (for wind), and loss of agricultural land (for solar). A recent analysis concluded that new local restrictions are outpacing construction of new wind and solar projects. Elizabeth Weise & Suhail Bhat, *Across America, Clean Energy Plants Are Being Banned Faster Than They’re Being Built*, USA Today (Feb. 4, 2024).

And while many Native American Tribes have embraced solar and wind energy development, projects that encroach on traditional lands can expect resistance. For instance, the Tohono O’odham Nation and the San Carlos Apache Tribe objected to the route of the SunZia transmission project (intended to carry wind power) and challenged BLM’s approval decision in federal court. Tribes have challenged the Calico Solar Project, the Imperial Valley Solar Project, and others in California in the wake of “fast track” policies. Geothermal projects also have drawn tribal challenges, as have mines that produce lithium and copper—both essential for renewable energy generation and storage components.

Given the trends in community opposition and local restrictions, federal lands could become even more important for development of utility-scale wind and solar projects, since county and other local restrictions often do not apply to federal lands. Nevertheless, to ensure sound decision-making, BLM must continue to be sensitive to the concerns of local communities and engage with tribal, state, and local governments as it reviews proposals.

## The New Renewable Energy Rule

BLM’s new Renewable Energy Rule seeks to improve and incentivize wind and solar development by reducing acreage rent and capacity fees, deemphasizing the use of competitive processes, and adding flexibility to the prioritization structure for review of projects outside priority areas. BLM, *Rights-of-Way, Leasing, and Operations for Renewable Energy*, 89 Fed. Reg. 35,634 (May 1, 2024).

The rule’s change to the competitive process requirement may incentivize development in some priority areas. BLM is no

longer required to hold a competitive bidding process before considering a noncompetitive application for a lease in a priority area, but it may conduct a competitive process for priority (as well as nonpriority) areas if sufficient interest exists. *See* 43 C.F.R. § 2809.10. In appropriate circumstances, a competitive process helps protect the public interest in advancing viable projects most likely to add to the nation's renewable energy portfolio while providing a fair return to taxpayers. With the increasing interest in wind and solar energy development on public lands that BLM has seen in recent years, more occasions warranting a competitive process can be expected. This trend may be accelerated by community pressure on state and local governments to restrict development on nonfederal lands.

The rule's changes to the way BLM prioritizes its review of applications are intended to promote development by allowing BLM flexibility in processing project proposals in nonpriority areas. BLM observed that its previous system for categorizing those applications had constrained its discretion to account for local resource considerations and circumstances. The revised criteria are not weighted and are to be considered "holistically." BLM may evaluate whether a proposal is in a preferred area for the type of development; avoids adverse impacts or conflicts and includes appropriate mitigation; conforms with the governing land use plan; is consistent with relevant tribal, state, and local government laws, plans, or priorities; and incorporates best management practices. 89 Fed. Reg. at 35,648; *see* 43 C.F.R. § 2804.35. The rule also allows BLM to adopt further criteria through policy or land-use planning.

### The 2024 Draft Solar PEIS

BLM estimates that to meet its solar deployment objectives, it will need to approve projects on 700,000 acres of the public lands it manages. The agency therefore has a new process underway to update the decisions in the 2012 Western Solar Plan (excluding lands in the 2016 DRECP) and complete programmatic analysis and planning decisions for lands in five additional states. The Draft PEIS for Utility-Scale Solar Energy Development (Draft Solar PEIS) was made available for public comment earlier this year. BLM, Notice of Availability of the Draft Programmatic Environmental Impact Statement for Utility-Scale Solar Energy Development and Notice of Public Meetings, 89 Fed. Reg. 3687 (Jan. 19, 2024). Through this process, BLM is poised to eliminate the distinction between priority and variance areas, while dramatically reducing the amount of public land available for consideration of utility-scale solar energy development applications.

The purpose of the Solar PEIS project is to "facilitate improved siting of utility-scale solar energy development" by identifying "solar application areas" expected to present "fewer resource conflicts" and "exclusion areas" known to have "high potential for resource conflicts." *Id.* at 3688. The Draft Solar PEIS compares five action alternatives and a no-action alternative that would continue management under BLM's current plans. The lands potentially allocated to solar application areas range from 8.4 to 55 million acres under the various action

alternatives. The Preferred Alternative identified by BLM in the Draft Solar PEIS allocates over 22 million acres as solar application areas, based on reduced resource conflicts and proximity to existing or planned transmission capacity.

The action alternatives only categorize lands as solar application areas or exclusion areas; none of the action alternatives would identify Designated Leasing Areas or other priority zones within solar application areas. Under existing plans—reflected in the no-action alternative—only 0.2% of lands in the 11 states (excluding the DRECP area) are designated as priority areas for utility-scale solar development, but a much larger 29.2% of lands are variance areas—nonpriority lands where applications nevertheless can be considered. Draft Solar PEIS, Table ES-2. The Preferred Alternative would reduce the total acreage of lands available for solar ROWs by more than half, to 13.7%, while 86.3% would be excluded. But the area that would remain available for applications (over 22 million acres) vastly exceeds the amount of land within priority areas under current plans (just over 330,000 acres).

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Reducing the total acreage available for consideration of applications should focus BLM's review capacity by taking exclusion areas off the table. However, BLM may not be able to fully realize the efficiencies of planning-scale NEPA analysis using the Solar PEIS due to its scale. The sheer amount of acreage in solar application areas under the action alternatives, relative to priority areas under current plans, may not allow sufficient resource-specific analysis in the PEIS to effectively streamline subsequent application review. For example, in the Preferred Alternative, solar application areas include many lands that conflict with big-game migration corridors. Noah Davis, *BLM's Western Solar Plan Puts Western Big Game Herds at Risk*, Theodore Roosevelt Conservation P'ship Blog (Apr. 11, 2024).

Despite BLM's robust scoping process, the multistate scale of the Solar PEIS and the size of the potential solar application areas under consideration may inhibit stakeholder involvement in identifying potential conflicts. Reduced public involvement, together with the absence of focused priority areas that communities understand and accept, could elevate the potential for local opposition to new projects.


## Regional Planning to Support Efficient Deployment of Renewable Energy on Public Lands

Encouraging projects in low-conflict areas aligns with FLPMA's multiple-use objectives. BLM should continue to strive to encourage development in priority areas, with appropriate consideration of resource protection and local interests. The solar application areas identified through the Solar PEIS likely will have reduced potential for conflicts; however, the scale of the project does not allow detailed analysis of all the lands those areas encompass and the draft action alternatives do not include priority areas for development focus.

Ultimately, to support its conservation and renewable energy objectives and avoid litigation delays, BLM must use efficient NEPA processes without shortchanging public engagement or inadequately considering potential conflicts. To accomplish this, BLM could follow the important work in the Solar PEIS with smaller-scale, regional programmatic planning efforts modeled on the DRECP. Regional plans could reduce conflicts by identifying appropriate priority areas for wind, solar, geothermal, and transmission development at a more granular level than is possible through multistate planning, and regional planning would allow closer cooperation with tribal, state, and local governments, as FLPMA encourages.

Regional planning would promote efficiency because project-specific NEPA analysis could incorporate information from regional studies more effectively than data from multistate analysis, and BLM's review of project proposals likely would move more swiftly with the benefit of early buy-in from regional stakeholders. Regional planning also would reduce developers' project expenses because, unlike project-specific analysis, they

would not bear the cost of regional analysis. Renewable energy developers could encourage regional planning by working with BLM and Congress to enact and fund a regional planning programmatic initiative based on cooperation with tribal, state, and local governments. Congress could approve a supplemental budget over a short-term period (5 to 10 years) for regional planning and NEPA analysis to reduce siting conflicts and expedite deployment of renewable energy on public lands.

Renewable energy development on federal public lands has expanded in recent years, with support from initiatives such as the 2006 Wind PEIS, the 2012 Western Solar Plan, the 2016 rule, and BLM's 2022 change to its ROW rent policy. At the same time, project developers have faced increasing litigation and local opposition, and transmission grid limitations persist. The 2024 Renewable Energy Rule will lower costs for developers and may incentivize development in some low-conflict areas. The Draft Solar PEIS could identify large areas that are potentially appropriate for solar energy development but, due to its scale, may not go far enough in identifying optimal locations for development focus and fostering community acceptance of those areas. The success of the 2016 DRECP suggests that similar collaborative, regional planning efforts could result in management frameworks at an appropriate scale to support efficient review of thoughtfully sited renewable energy and transmission projects on public lands. 

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