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Energy Production on Federal Lands: Leasing and Authorization

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Federal lands are a significant source of energy raw materials and electricity production. As a result, some have looked to federal lands as an important factor in addressing questions about energy supply, energy prices, renewable resources, and climate change.

A number of different laws and regulations govern the leasing of federal lands for exploration and production of oil, natural gas, and coal, as well as the permits that lessees must obtain in order to explore for and produce these resources. The leasing process for these lands has evolved over the past century under the framework established by the Mineral Leasing Act of 1920 (MLA). Oil, natural gas, and coal leasing and production on federal land pursuant to the MLA are currently overseen by the Bureau of Land Management (BLM), an agency within the U.S. Department of the Interior (DOI), in accordance with the principles of the Federal Land Policy and Management Act of 1976 (FLPMA). BLM may lease federal lands identified in a Resource Management Plan (RMP) as amenable to oil, coal, or natural gas exploration and production so long as such activities in that area are not prohibited by statute or regulation. Such lands are usually leased to the highest bidder as determined by competitive auction. Leaseholders are generally required to pay both rental fees and royalties (a percentage of the value of produced oil, natural gas, or coal) to the U.S. government. Other federal agencies manage federal lands that are reserved for specific purposes. Different statutory authorities may allow those agencies to facilitate energy projects on these lands to varying degrees.

The use of federal lands for renewable energy projects—including geothermal, wind, and solar energy—is subject to similar, but distinct, federal laws and regulations from oil, natural gas, and coal leasing. Geothermal projects are leased in accordance with the requirements of the Geothermal Steam Act of 1970, which functions similarly to the MLA: Lands that are amenable to geothermal projects are leased to the highest qualified bidder. In contrast, wind and solar projects on federal lands are often not authorized by leases but rather by BLM granting a right-of-way. These rights-of-way are issued pursuant to the requirements of Title V of FLPMA, and holders of these rights-of-way must make monthly rental payments to the U.S. government. Recent efforts by BLM and Congress have sought to create a leasing program for renewable energy similar to the one in place for fossil fuel exploration and production.

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Introduction

A variety of interrelated statutes and agency regulations govern leasing and permitting for energy exploration and production on federal lands.¹ Generally, these projects can be divided into two categories, each of which is governed by its own set of statutes and regulations.

The first category is the exploration for and production of fossil fuels, including oil, natural gas, and coal. Oil, natural gas, and coal exploration and production on federal lands are generally governed by the Mineral Leasing Act of 1920 (MLA), as amended.² The Bureau of Land Management (BLM), an agency that is part of the U.S. Department of the Interior (DOI), administers the MLA. In most cases, the lessee is authorized to explore for and ultimately produce oil, natural gas, or coal on federal lands in exchange for lease and royalty payments to the U.S. government. BLM authorizes exploration activities and production activities for lessees only upon lessees' request for permission to engage in these activities on the leased land.

The second category is renewable energy projects. Geothermal energy projects are leased under a similar structure to oil, natural gas, and coal projects. Under the Federal Land Policy and Management Act of 1976 (FLPMA), solar and wind projects are often undertaken pursuant to a right-of-way or similar property interest. However, recently there have been efforts to create a renewable energy leasing framework similar to the ones that already exist for oil, natural gas, coal, and geothermal production on federal lands.

Coal, Natural Gas, and Oil Production on Federal Lands

History and Background

At the start of the 20th century, private entities could explore, develop, and purchase federal lands containing mineral resources, including fossil fuels, with relative ease. Resources on or under these federal lands could be transferred to full private ownership pursuant to the terms of the Mining Law of 1872.³ This process was known as “patenting.” Under the patenting process, full ownership of lands with subsurface oil resources “could be obtained for a nominal amount.”⁴

The Mineral Leasing Act of 1920

In the early 20th century, Congress decided that oil and natural gas resources on onshore federal lands should remain under federal ownership. The enactment of the MLA in 1920 made exploration for and production of these resources ineligible as a basis for patenting.⁵ Instead, the MLA authorized the Secretary of the Interior to establish a leasing framework for the production of oil, coal, or natural gas on federal lands.⁶

¹ This report provides a discussion of energy projects on onshore federal lands (i.e., any land in which the federal government maintains a property interest). Offshore areas on the continental shelf are also sometimes referred to as “lands” but are outside the scope of this report. For discussion of offshore energy projects, see CRS Report RL33404, *Offshore Oil and Gas Development: Legal Framework*, by Adam Vann (2018).

² 30 U.S.C. §§ 181-287.

³ 30 U.S.C. § 22 note, 17 Stat. 91-96.

⁴ See *Pan-Am. Petroleum & Transp. Co. v. United States*, 273 U.S. 456, 486 (1927) (internal citation omitted).

⁵ Mineral Leasing Act of 1920 (MLA), 41 Stat. 4373 (1920), codified at 30 U.S.C. §§ 181 *et seq.*

⁶ *Id.* The MLA also established a leasing framework for a handful of other resources, including phosphates, sodium, and oil shale. Although the patent system created by the Mining Law of 1872 remains in effect for mineral resources (continued...)

The MLA authorizes the Secretary of the Interior to lease onshore lands owned by the United States, including those that contain fossil fuel deposits, with the federal government retaining title to the lands.⁷ BLM administers the leasing program for subsurface mineral rights not only for the land BLM controls but also for lands controlled by other federal agencies, such as the U.S. Forest Service.⁸

The MLA excludes from leasing numerous categories of lands, such as national parks and monuments, as well as lands in incorporated cities, towns, and villages.⁹ Lands within a designated National Wilderness Preservation System area also cannot be leased, but valid property rights that were already in existence by 1984, including leases, are preserved by statute.¹⁰ In addition, although BLM controls the leasing process for subsurface rights to land in the National Forest System, the Secretary of the Interior cannot issue any lease for National Forest System lands reserved from the public domain if the Secretary of Agriculture objects.¹¹

The Federal Land and Policy Management Act of 1976

BLM administers hundreds of millions of acres of subsurface federal estate throughout the country. The Secretary of the Interior must develop and revise Resource Management Plans (RMPs) for the lands it manages that consider both present and potential future uses.¹² These RMPs are the first step in determining which lands may be subject to leasing, as all activities performed on BLM lands must be consistent with the RMPs.¹³

Related to this authority, FLPMA authorizes the Secretary of the Interior to withdraw federal lands so that some or all potential land uses, including use for fossil fuel exploration and production, are not permitted on those lands.¹⁴ A withdrawal involves “withholding an area of Federal land from settlement, sale, location, or entry, under some or all of the general land laws, for the purpose of limiting activities under those laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program.”¹⁵ Congress can also make withdrawals through legislation, and the Secretary may not modify or revoke a congressional withdrawal.¹⁶

not included in the MLA’s leasing program, it has been revised significantly over the years. Since FY1994, Congress has included a limitation in the DOI budget providing that “none of the funds appropriated or otherwise made available pursuant to this Act shall be obligated or expended to accept or process applications for a patent for any mining ... claim.” *See, e.g.*, Department of the Interior and Related Agencies Appropriations Act of 1995, Pub. L. 103-332 § 112, 108 Stat. 2499, 2519 (1994).

⁷ 30 U.S.C. § 181. Lands acquired by the United States are generally subject to the MLA pursuant to the Mineral Leasing Act for Acquired Lands of 1947, codified at 30 U.S.C. §§ 351 *et seq.*

⁸ *Id.*

⁹ *Id.*

¹⁰ 16 U.S.C. § 1133(d)(3) (“Subject to valid rights then existing, effective January 1, 1984, the minerals in lands designated ... as wilderness areas are withdrawn from all forms of appropriation under the mining laws and from disposition under all laws pertaining to mineral leasing and all amendments thereto.”).

¹¹ *Id.* § 226(h). In addition, the U.S. Forest Service has issued separate regulations governing certain aspects of leasing and permitting for oil and gas development on lands within its jurisdiction.

¹² 43 U.S.C. § 1712; 43 C.F.R. Subpart 1610.

¹³ 43 C.F.R. § 1610.5-3.

¹⁴ 43 U.S.C. § 1714 (2000).

¹⁵ *Id.* § 1702(j).

¹⁶ *Id.* § 1714(j).

The Secretary must generally apply “multiple use” and “sustained yield” principles when developing RMPs.¹⁷ *Multiple use* principles require, among other things,

management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources.¹⁸

Sustained yield requires BLM to achieve and maintain “high-level annual or regular periodic output of the various renewable resources of the lands.”¹⁹ In addition, FLPMA requires the Secretary to provide opportunities for the public and other governmental entities to participate in the development of RMPs, including public hearings where appropriate.²⁰ Regulations require the preparation of an environmental impact statement (EIS) in accordance with the National Environmental Policy Act (NEPA)²¹ when producing an RMP.²²

The Forest Service also manages 193 million acres of federal land under the same “multiple use” and “sustained yield” policies.²³ The Forest Service develops land management plans for National Forest System by considering the desired conditions, objectives, suitability of areas for various uses, and other criteria.²⁴ As with the BLM planning process, the laws governing Forest Service land management and implementation require public notification and opportunities for public participation.²⁵ When analyzing National Forest System lands for potential leasing, the Forest Service classifies lands into three categories:

1. Lands that will be “open to development subject to the terms and conditions of the standard oil and gas lease form”;
2. Lands that will be “open to development but subject to constraints that will require the use of lease stipulations”; and

¹⁷ 43 U.S.C. § 1732(a). An exception applies in circumstances “where a tract of such public land has been dedicated to specific uses according to any other provisions of law,” in which case “it shall be managed in accordance with such law.” *Id.*

On May 9, 2024, BLM issued a final rule updating its FLPMA implementing regulations to prioritize ecosystem health and resilience within the principles of multiple use and sustained yield. Conservation and Landscape Health, 89 Fed. Reg. 40308 (May 9, 2024).

¹⁸ *Id.* § 1702(c).

¹⁹ *Id.* § 1702(h).

²⁰ *Id.* § 1712(f).

²¹ 42 U.S.C. §§ 4321 et seq.

²² See 43 C.F.R. § 1601.0-6. BLM’s regulations stipulate that approval of an RMP constitutes a “major Federal action significantly affecting the quality of the human environment”; thus, NEPA requires the preparation of an EIS. *Id.*; see 42 U.S.C. § 4332(2)(C). An EIS must address numerous issues, including the environmental impact of the proposed action, alternatives to the proposed action, and any irreversible commitments of resources if the proposed action takes place. 42 U.S.C. § 4332(2)(C). For an overview of NEPA’s requirements, see CRS In Focus IF12560, *National Environmental Policy Act: An Overview*, by Kristen Hite (2023).

²³ Multiple-Use Sustained-Yield Act, Pub. L. No. 86-517 (1960), codified at 16 U.S.C. §§ 528-532.

²⁴ 16 U.S.C. § 1604; 36 C.F.R. §§ 219.5, 219.7.

²⁵ 16 U.S.C. §§ 1604(d), 1612; 36 C.F.R. § 219.4.

3. Lands that will be “closed to leasing, distinguishing between those areas that are being closed through exercise of management direction, and those closed by law, regulation, etc.”²⁶

The Forest Service must also comply with NEPA when analyzing National Forest System lands for potential leasing.²⁷ Once the Forest Service has determined which lands will be available for leasing, it notifies BLM of its decisions and may subsequently authorize BLM to lease the lands in question.²⁸

The Leasing Process: Oil and Gas

The MLA authorizes a competitive leasing process for oil and gas exploration and production.²⁹ The process from consideration to production occurs in three main stages, each of which may have additional steps. First, lands are identified for potential oil and gas leasing based on the relevant agency’s land management planning process. Then, a lease sale is held and leases are awarded based on competitive bidding. Finally, the holder of a lease must develop a plan and obtain a permit for its energy development activities. This process begins when BLM generates a list of lands available for competitive oil and natural gas leasing based on the RMP, expressions of interest, and other variables. Private entities may respond by submitting nominations for parcels to be auctioned.³⁰ Each unit must be “as nearly compact as possible” and may not exceed 2,560 acres except in Alaska, where the maximum unit acreage is 5,760 acres.³¹

The MLA requires competitive bidding on at least a quarterly basis in each state where federal lands are available for leasing.³² The Secretary may also authorize additional opportunities for bidding if deemed necessary.³³

Once public notice requirements have been satisfied, the Secretary usually offers the land for leasing through competitive auction.³⁴ A competitive bid in such an auction constitutes a legally binding commitment and cannot be withdrawn.³⁵ The MLA requires the Secretary to accept the highest bid from a responsible qualified bidder whose bid meets or exceeds the national minimum acceptable bid.³⁶

The winning bidder at a competitive auction must submit the following payments on the day of sale, unless otherwise specified: (1) the minimum bid amount; (2) the first year’s rental payment; and (3) a processing fee, as set forth in BLM’s regulations.³⁷ Then, the balance of the bonus bid—any amount above the statutory minimum bid amount—is due within 10 working days.³⁸ The

²⁶ 36 C.F.R. § 228.102(c).

²⁷ 16 U.S.C. § 1604(g); 36 C.F.R. § 228.102(a).

²⁸ 36 C.F.R. § 228.102(d), § 228.102(e).

²⁹ The MLA leasing process for coal is similar to the process for oil and gas, but there are some differences discussed later in this report.

³⁰ See 43 C.F.R. § 3120.3-1.

³¹ 30 U.S.C. § 226(b)(1)(a).

³² *Id.*

³³ *Id.*

³⁴ *Id.*

³⁵ 43 C.F.R. § 3120.5-3(a).

³⁶ 30 U.S.C. § 226(b)(1)(A).

³⁷ 43 C.F.R. § 3120.5-2.

³⁸ *Id.*

lease is also conditioned upon agreement to remit royalty payments³⁹ unless the Secretary suspends, waives, or reduces the royalty.⁴⁰

Prior to enactment of the Inflation Reduction Act in 2022, if no valid bids were received at a competitive bidding auction, the land would be offered for noncompetitive leasing. However, the Act repealed the MLA's noncompetitive leasing provision,⁴¹ so if there are no valid bids, the leasehold remains with the federal government for future use in accordance with statutory mandates.

An Obligation to Lease?

As noted above, the MLA directs DOI to hold lease sales for “each State where eligible lands are available at least quarterly.”⁴² This provision requires quarterly lease sales “where eligible lands are available,” but the Secretary may have some discretion to determine whether a state has any eligible and available federal lands for leasing. Relying on that discretion, the Biden Administration in 2021 issued an executive order, E.O. 14008, to “pause” all leasing on federal lands.⁴³ In 2021, the U.S. District Court for the Western District of Louisiana held that the “pause” likely violated the requirements of the MLA.⁴⁴ The court held that the “discretion to pause a lease sale to eligible lands is not within the discretion of the agencies by law,” because under the MLA, “the Secretary of DOI is required to hold lease sales for each state where eligible lands are available at least quarterly.”⁴⁵

The government appealed this decision, and the U.S. Court of Appeals for the Fifth Circuit remanded with instructions to the district court to clarify whether its injunction applied nationally.⁴⁶ On remand, the district court clarified that the “pause” was enjoined nationally,⁴⁷ although by that time the Biden Administration had voluntarily lifted it.

A Wyoming federal district court appears to have applied a different interpretation of the MLA. In *Western Energy Alliance v. Biden*, the court considered BLM's decision to delay the leasing process based on the agency's concerns about NEPA compliance.⁴⁸ The Wyoming court cited the same MLA language the Western District of Louisiana did, requiring leasing “for each State where eligible lands are available at least quarterly.”⁴⁹ However, the court went on to say:

“Eligible” and “available” are not defined by Congress in the MLA, which necessarily delegates the matter to the agency. “‘Eligible’ lands comprise all lands ‘subject to leasing, i.e, lands not excluded from leasing by a statutory or regulatory prohibition.’ ‘Available’ lands are those ‘open to leasing in the applicable [Resource Management Plan], ... when all statutory requirements and reviews have been met.’”⁵⁰

³⁹ 43 C.F.R. § 3103.31.

⁴⁰ 30 U.S.C. § 209.

⁴¹ Pub. L. 117-169, § 50262(e), 136 Stat. 1818, 2057 (2022).

⁴² *Id.* § 226(b)(1)(A).

⁴³ E.O. 14008, “Tackling the Climate Crisis at Home and Abroad,” 86 Fed. Reg. 7619 (Feb. 1, 2021).

⁴⁴ *Louisiana v. Biden*, 543 F. Supp. 3d 388 (W.D. La. 2021).

⁴⁵ *Id.* at 409.

⁴⁶ *Louisiana v. Biden*, 45 F.4th 841 (5th Cir. 2021).

⁴⁷ *Louisiana v. Biden*, 622 F. Supp. 3d 267 (W.D. La. 2022).

⁴⁸ No. 21-cv-13-SWS, 2022 WL 18587039 (D. Wyo. Sept. 2, 2022).

⁴⁹ *Id.* at *9.

⁵⁰ *Id.*

The court held that the postponed lease sales involved lands that were not “available,” because the BLM deputy director of operations or DOI Assistant Secretary for Land and Mineral Management determined that the NEPA documentation for the lease sales needed additional review and possible reworking due to other developments.⁵¹ As a result, the court concluded that the federal lands tentatively set for lease through competitive bidding in March 2021 had not satisfied all necessary statutory requirements.

In contrast to the Louisiana district court, the Wyoming district court interpreted the MLA to provide substantially more discretion to the agency regarding what constitutes “eligible” land “available” for leasing. These two decisions leave BLM without a clear answer as to whether the act creates a broader obligation to hold regular lease auctions. Litigation on this subject is rare, because DOI has rarely paused leasing nationally or regionally in this manner, so the extent of the federal government’s “obligation” to hold oil and gas leasing auctions remains an open question.

Lease Terms and Conditions: Oil and Natural Gas

Eligibility Requirements

In addition to dictating how to determine *where* leasing can take place, the MLA places general restrictions on *who* can lease. Federal lands containing oil and gas deposits may be leased only to U.S. citizens, associations of U.S. citizens, corporations organized under U.S. laws or the laws of any state, and municipalities.⁵² In addition, citizens of a country that denies similar privileges to U.S. citizens and corporations may not control any interest in federal leases.⁵³ Also, no entity is permitted to own or control oil or gas leases in excess of certain acreage caps.⁵⁴

Payment Obligations

Many federal energy leases require payment to the government of a royalty (a set percentage of the value of oil or gas production that is removed or sold from the leased land). The MLA currently sets a minimum royalty rate of 16 2/3% for federal oil and gas leases.⁵⁵ Leases also require payment of annual rental fees, priced on a sliding scale over the term of the leasehold.⁵⁶ Rental payments are not due on acreage for which annual royalty payments exceed the rental payment obligation.⁵⁷

Money received from royalties and rental fees is initially paid into the U.S. Treasury.⁵⁸ The terms of the MLA provide that 50% of the funds received are then allocated to the state where the land or mineral deposit is located.⁵⁹ Forty percent of the funds are allocated to the Reclamation Fund established under the Reclamation Act of 1902 for projects that provide water to arid Western

⁵¹ *Id.*

⁵² 30 U.S.C. § 181.

⁵³ *Id.*

⁵⁴ *Id.* § 184(d)(1).

⁵⁵ *Id.* § 226(b)(1)(A). This number was recently adjusted upward by Section 50261 of the Inflation Reduction Act of 2022, Pub. L. No. 117-169, 136 Stat. 1818, 2056. The prior default royalty rate of 12% applies to most BLM oil and gas leases issued prior to August 16, 2022.

⁵⁶ 30 U.S.C. § 226(d).

⁵⁷ *Id.*

⁵⁸ *Id.* § 191(a).

⁵⁹ *Id.*

states.⁶⁰ The remaining amount stays in the Treasury as “miscellaneous receipts.”⁶¹ Ninety percent of the funds collected from federal leases in Alaska are allocated to the state of Alaska, which is not served by the Reclamation Fund.⁶² The federal government takes 2% out of these scheduled payments to the states to cover administrative costs.⁶³

Initial Term, Extensions, and Cancellations

The MLA directs DOI to establish a primary term of 10 years for federal oil and gas leases.⁶⁴ This primary term is automatically extended “for any period during which oil or gas is produced in paying quantities”⁶⁵ or if “actual drilling operations were commenced and diligently prosecuted” before the end of the primary term.⁶⁶

A group of lessees may collectively adopt and operate under a cooperative plan for exploration and production in a particular area if the Secretary considers such a plan to be in the public interest.⁶⁷ Any lease subject to such a plan is to be extended if any of the leases covered by the plan qualify for a drilling or production extension.⁶⁸

Any MLA lease can be canceled or forfeited if the lessee fails to comply with the statute, the lease’s provisions, or regulations promulgated pursuant to the MLA.⁶⁹ In some situations, the Secretary has the authority to cancel the lease unilaterally, but some circumstances require a judicial proceeding to cancel the lease.⁷⁰ In addition, the MLA provides for *automatic* termination “upon failure of a lessee to pay rental on or before the anniversary date of the lease, for any lease on which there is no well capable of producing oil or gas in paying quantities.”⁷¹ However, the Secretary may in some circumstances reinstate automatically terminated leases.⁷²

Applications for Permits to Drill: Oil and Gas

Federal oil and gas lessees are not granted the right to drill the leased land as they see fit. BLM regulations are generally incorporated into the terms of each lease.⁷³ Those regulations require that all wells be drilled “in conformity with an acceptable well-spacing program at a surveyed well location approved or prescribed by the authorized officer after appropriate environmental

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² *Id.*

⁶³ *Id.* § 191(b).

⁶⁴ *Id.* § 226(e).

⁶⁵ *Id.* § 226(e)(2).

⁶⁶ *Id.* § 226(e)(3).

⁶⁷ *Id.* § 226(m).

⁶⁸ *Id.*

⁶⁹ 30 U.S.C. § 188(a); 43 C.F.R. § 3108.3(a), (b).

⁷⁰ *See* 43 C.F.R. § 3108.3(a), (b).

⁷¹ 30 U.S.C. § 188(b).

⁷² *See id.* § 188(c)-(e), (g), (j).

⁷³ *See, e.g.*, Form 3100-011, Department of the Interior, Bureau of Land Management, *Lease for Oil and Gas*, available at https://www.blm.gov/sites/blm.gov/files/uploads/Services_National-Operations-Center_Eforms_Fluid-and-Solid-Minerals_3100-011.pdf.

and technical reviews.”⁷⁴ The agency thus requires operators⁷⁵ to submit an Application for a Permit to Drill (APD) for each well they plan to drill during exploration or production. Prior to approval of an APD, BLM must prepare conduct an environmental review, potentially including an EIS, in accordance with the requirements of NEPA.⁷⁶ BLM must also approve the lessee’s proposed surface-disturbing activities before approving an APD.⁷⁷ A complete APD must include a drilling plan, a surface use plan of operations (including drillpad locations and plans for reclaiming the surface), evidence of bond coverage, and any other information BLM may require.⁷⁸

Depending on the location of a lease and its proximity to various resources, BLM may also be required to complete other federal statutory requirements related to analysis, consultation, or permitting. Environmental organizations often bring legal challenges that allege that the leasing agency failed to comply with NEPA or other environmental protection statutes in deciding to conduct lease sales or to approve exploration plans or APDs or other administrative actions related to the oil and gas leasing process. Such a challenge may claim, for example, that BLM failed to account for the impact of the additional oil and gas exploration and production on the environment, including aggregate impacts on climate change,⁷⁹ or that the project would impact a listed species or its critical habitat and the agency failed to satisfy the requirements of the Endangered Species Act.⁸⁰ Proximity to other resources may trigger litigation alleging failure to comply with other protections, including the National Historic Preservation Act⁸¹ and requirements for consultation with Indian tribes to protect tribal land and interests.⁸²

The Leasing Process: Coal

The process for coal leasing on federal lands, which is governed by Section II of the MLA as amended, is similar to the process for oil and gas leasing.⁸³ Under the statute as amended and the regulations promulgated pursuant to it, coal leasing on federal lands may not commence until the land to be leased has been included in a comprehensive land use analysis.⁸⁴ However, the Secretary is authorized to prescribe coal “exploration licenses” to allow non-lessees to enter federal lands and conduct exploratory activities that do not cause substantial disturbance to the surface.⁸⁵

There are two processes by which federal lands may be made available to be leased for coal production. The first is “regional coal leasing,” in which BLM selects tracts for leasing as needed to meet regional requirements as outlined by “regional coal teams” composed of BLM officials

⁷⁴ 43 C.F.R. § 3162.3-1(c). Oil and gas operations on lands managed by the Forest Service must obtain approval from that agency for their surface disturbing activities.

⁷⁵ BLM regulations define an “operator” as “any person or entity including but not limited to the lessee or operating rights owner, who has stated in writing to the authorized officer that it is responsible under the terms and conditions of the lease for the operations conducted on the leased lands or a portion thereof.” 43 C.F.R. § 3160.0-5.

⁷⁶ 43 C.F.R. § 3162.5-1(a).

⁷⁷ *Id.* § 3162.5-1(b).

⁷⁸ *Id.* § 3162.3-1(d), (f).

⁷⁹ *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41 (D.D.C. 2019).

⁸⁰ *Bd. of Cnt. Comm’rs of Cnty. of San Miguel v. BLM*, 584 F. Supp. 3d 949 (D. Colo. 2022).

⁸¹ *New Mexico ex rel. Richardson v. BLM*, 459 F. Supp. 2d 1102 (D.N.M. 2006).

⁸² *San Juan Citizens Alliance v. Norton*, 586 F. Supp. 2d 1270 (D.N.M. 2008).

⁸³ 30 U.S.C. §§ 201 *et seq.*

⁸⁴ *Id.* § 201(a)(3)(A)(i).

⁸⁵ *Id.* § 201(b).

and interested state and local parties.⁸⁶ BLM has not employed regional coal leasing in recent years, citing a lack of demand.⁸⁷

The second is leasing on application, in which BLM issues coal leases on a case-by-case basis to parties who express interest. In this process, a qualified potential lessee may submit an application to lease for purposes of coal development any BLM lands that have been included in a comprehensive coal land use plan or analysis.⁸⁸ The application must contain certain data intended to assist BLM in conducting the environmental analysis needed to satisfy the requirements of NEPA.⁸⁹ After this process is completed, BLM determines the fair market value of the available coal and the maximum economic recovery for the proposed lease tract,⁹⁰ and it consults with the same parties with whom consultation is required for regional leasing.⁹¹

After these requirements are met, BLM conducts the lease sale. Most BLM coal leasing is done competitively—with exceptions if a party holds a “prospecting permit” issued prior to the Federal Coal Leasing Amendments of 1976 or if contiguous lands are added to existing leases.⁹² As with oil and natural gas leasing, coal tracts may be leased only to U.S. citizens, associations of U.S. citizens, corporations organized under U.S. laws or the laws of any state, and municipalities.⁹³ Also, no entity is permitted to own or control coal leases with an aggregate acreage in excess of 75,000 acres in any one state or more than 150,000 acres in the United States.⁹⁴ A party who has held a federal coal lease for 10 or more years that has not produced commercial quantities of coal may not acquire any other mineral leases under the MLA.⁹⁵ BLM-issued coal leases are for initial terms of 20 years with automatic extension “for so long thereafter as coal is produced annually in commercial quantities from that lease.”⁹⁶ In addition to rental payments, lessees are required to pay a royalty of at least 12.5% of the value of the coal that is recovered from the leased land.⁹⁷ The Secretary has the authority to determine other applicable terms and conditions of coal leases.⁹⁸

Renewable Energy Projects on Federal Lands

Some federal lands have topography that is considered suitable for certain types of renewable energy projects, leading to consistent interest in siting those projects on federal lands. As with leasing for oil, gas, and coal, the use of federal lands for renewable energy must be consistent with the land management planning process established by FLPMA and other applicable statutes. Renewable energy uses can be considered during the formulation of RMPs for federal lands, as discussed above. A recent BLM final rule directs the agency to “build and maintain the resilience

⁸⁶ 43 C.F.R. § 3420.2.

⁸⁷ See Bureau of Land Management, *Frequently Asked Questions about the Federal Coal Leasing Program 7*, https://eplanning.blm.gov/public_projects/nepa/64842/78268/88489/CoalFAQ.pdf (last visited June 17, 2024).

⁸⁸ 43 C.F.R. §§ 3425.1, 3425.2.

⁸⁹ *Id.* §§ 3425.1-7; 3425.3.

⁹⁰ *Id.* § 3424.5(a)(1).

⁹¹ *Id.* § 3424.5(a)(2).

⁹² *Id.* §§ 3430.0-7, 3432.1.

⁹³ *Id.* § 3102.10.

⁹⁴ 30 U.S.C. § 184(a).

⁹⁵ *Id.* § 201(a)(2).

⁹⁶ *Id.* § 207(a).

⁹⁷ *Id.*

⁹⁸ *Id.*

of ecosystems on public lands in three primary ways: (1) protecting the most intact, functioning landscapes; (2) restoring degraded habitat and ecosystems; and (3) using science and data as the foundation for management decisions across all plans and programs.”⁹⁹ The new rule does not change the process by which BLM makes land use planning decisions but amends BLM’s FLPMA implementing regulations to emphasize the importance of renewable resources in considerations of “sustained yield” and “ecosystem resilience” when developing RMPs.¹⁰⁰ The regulations note that “sustained yield” includes “the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of BLM-managed lands consistent with multiple use and without permanent impairment of the productivity of the land.”¹⁰¹ Renewable energy projects may have a more expanded role within this framework.

The following laws and regulations govern specific forms of renewable energy production on federal lands.

Geothermal Project Leasing

Geothermal energy is produced by releasing cold water under the surface of the earth into a “hot” area in order to generate steam that fuels the generation of power. The governing law for steam leasing is the Geothermal Steam Act of 1970.¹⁰² The Geothermal Steam Act authorizes BLM to manage geothermal leasing on approximately 245 million acres of public lands (including 104 million acres of Forest Service lands).¹⁰³ The Act sets forth detailed provisions governing the issuance and administration of geothermal steam leases.

The laws and regulations governing geothermal steam leasing and administration are similar to the principles and processes for oil and natural gas leasing on federal lands described in detail earlier in this report—with a handful of notable differences. BLM has authority to conduct “direct use” leasing of geothermal resources in which the geothermal steam is delivered directly for end use rather than converted into electricity.¹⁰⁴ The Energy Act of 2020¹⁰⁵ included a provision authorizing BLM to permit the co-production of geothermal energy under existing oil and gas leases.¹⁰⁶

As with oil and gas leasing, BLM administers geothermal resource development in a number of stages after the lease auction. Exploration, production, and reclamation projects require separate authorizations when ground-disturbing activities are proposed, and BLM must comply with NEPA prior to issuing a lease or authorizing development activities.¹⁰⁷ While litigation is

⁹⁹ Conservation and Landscape Health, 89 Fed. Reg. 40308 (May 9, 2024).

¹⁰⁰ *Id.* at 40316.

¹⁰¹ 43 C.F.R. § 6101.4(z).

¹⁰² Pub. L. No. 91-581, 84 Stat. 1566, codified at 30 U.S.C. §§ 1001 *et seq.*

¹⁰³ Bureau of Land Management, Geothermal Energy (Feb. 12, 2024), <https://www.blm.gov/programs/energy-and-minerals/renewable-energy/geothermal-energy>. As with oil and gas leasing, BLM administers the geothermal leasing process for lands controlled by the Forest Service subject to additional Forest Service approvals.

¹⁰⁴ 30 U.S.C. § 1003(f).

¹⁰⁵ Pub. L. No. 118-260, 134 Stat. 1182, 2418. The Act was included as “Division Z” of broader omnibus appropriations legislation.

¹⁰⁶ *Id.* § 3105, 134 Stat 2516.

¹⁰⁷ 43 C.F.R. Part 3200.

relatively rare due to the more limited scope of geothermal energy production on federal lands, parties do occasionally challenge BLM's leasing decisions under the Geothermal Steam Act.¹⁰⁸

Rights-of-Way for Solar and Wind Power Production on Federal Lands: Title V of FLPMA

Federal lands have significant capacity for both wind and solar energy production. However, while oil, gas, and geothermal projects are permitted by BLM under leasing processes, those interested in producing wind or solar energy on federal lands often seek more limited authorizations for development of their energy projects pursuant to Title V of FLPMA.¹⁰⁹

BLM Rights-of-Way

Section 501(a)(4) of FLPMA authorizes the Secretaries of the Interior and Agriculture to “grant, issue or renew rights-of-way over, upon, under or through such lands for ... systems for generation, transmission, and distribution of electric energy.”¹¹⁰ Parties applying for BLM rights-of-way for development of wind or solar energy projects must satisfy a number of requirements in their applications as set forth by the Secretary of the Interior.¹¹¹ These include disclosures regarding the use of the right-of-way, the identification of business partners and other affiliated entities, and plans for use of the right-of-way.¹¹²

Energy rights-of-way authorized pursuant to Section 501 of FLPMA differ from oil and natural gas leases in several respects. Perhaps the most significant difference is that when BLM grants a right-of-way, it retains substantial rights to use of the land in question, including the rights to access the lands and any facilities covered by the right-of-way and to require common use of the right-of-way.¹¹³ The federal government also retains ownership of all natural resources on the land, including minerals and vegetation.¹¹⁴ In addition, BLM retains the discretion to determine whether right-of-way grants are renewable or renewed,¹¹⁵ and BLM retains the right to change the terms of a right-of-way to comply with other laws or to protect public health, safety, or the environment.¹¹⁶

Forest Service Special Use Authorizations

FLPMA also authorizes the Secretary of Agriculture to grant rights-of-way for lands under Forest Service purview. Applicants seeking to make use of Forest Service lands for such a project apply for “special use authorization” under the generally applicable regulations for such authorizations

¹⁰⁸ See, e.g., *Pit River Tribe v. BLM*, 793 F.3d 1147 (9th Cir. 2015) (challenge by Indian tribes and environmental organizations to geothermal leasing, alleging violations of the Geothermal Steam Act, NEPA, the NHPA, and the government's fiduciary trust obligation to Indian tribes).

¹⁰⁹ Pub. L. No. 94-579, 90 Stat. 2743 (1976), codified at 43 U.S.C. §§1767 *et seq.*

¹¹⁰ 43 U.S.C. § 1761(a). A recent Supreme Court decision held that the Forest Service retains permitting authority for rights-of-way across the Appalachian Trail and similar areas even if DOI assigns responsibility to the trail itself to the National Park Service. *U.S.F.S. v. Cowpasture River Preservation Ass'n*, 590 U.S. 604, (2020).

¹¹¹ 43 U.S.C. § 1761(b).

¹¹² *Id.* A detailed review of the information that must be included in an application for a FLPMA right-of-way grant can be found at 43 C.F.R. Subpart 2804.

¹¹³ 43 C.F.R. § 2805.15.

¹¹⁴ *Id.* § 2805.15(c).

¹¹⁵ *Id.* § 2805.15(d).

¹¹⁶ *Id.* § 2805.15(e).

found at 36 C.F.R. Part 251, Subpart B. All uses of National Forest System lands other than road usage, grazing and livestock use, sale and disposal of timber and other forest products, and mineral usage are designated as “special uses.”¹¹⁷

Before conducting activities on these lands that are considered special uses, an individual or entity must submit a proposal to a Forest Service–authorized officer¹¹⁸ and must obtain “special use authorization” from that officer.¹¹⁹ The authorized officer may grant “permits, leases and easements ... for rights-of-way for ... [s]ystems and related facilities for generation, transmission and distribution of electric energy,”¹²⁰ which would authorize wind or solar generation facilities.

As with BLM rights-of-way, special use authorizations are subject to a number of limitations that illuminate a few important differences from leases. The Forest Service retains continuing rights of access and entry to all Forest System lands and the right to require common use of the land or to authorize the use by others in any way not inconsistent with a holder’s existing rights and privileges after consultation.¹²¹ The regulations do not establish the duration and renewability of special use authorizations, providing simply that “[i]f appropriate, each special use authorization will specify its duration and renewability,” which must be “no longer than the authorized officer determines is necessary to accomplish the purpose of the authorization and to be reasonable in light of all circumstances concerning the use.”¹²²

Recent Legislation Related to Renewable Energy Production on Federal Lands

A number of laws passed in recent years have amended or supplemented existing laws and regulations governing renewable energy on federal lands, usually in an effort to stimulate increased renewable energy production. These include the Energy Act of 2020, the Infrastructure Investment and Jobs Act of 2021, and the Fiscal Responsibility Act of 2023. This section discusses these legislative and administrative efforts.

The Energy Act of 2020¹²³ contains a number of provisions that amended renewable energy policies and practices on federal lands. Title III of the Act specifically addresses “renewable energy and storage,” and several of its provisions are relevant to federal lands:

- Section 3102 directs the Secretary of Energy to establish a new national “Renewable Energy Coordination Office” as well as state, district and field offices, as appropriate, with the intention of coordinating and streamlining review of applications for renewable energy projects on federal lands.¹²⁴
- Section 3103 authorizes the Secretary to adjust rates and fees to “promote the greatest use of wind and solar energy resources.”¹²⁵
- Section 3104 directs the Secretary to coordinate with other agencies to establish national renewable energy goals and to “seek to issue permits that, in total,

¹¹⁷ 36 C.F.R. § 251.50(a).

¹¹⁸ The chief of the Forest Service is considered the “authorized officer,” and the regional foresters, forest supervisors, district rangers, and other officers can all serve as “authorized officers” through delegation. *Id.* § 251.52.

¹¹⁹ *Id.* § 251.52. This requirement can be waived under certain circumstances that are not likely to apply to energy projects.

¹²⁰ *Id.* § 251.53(l)(4).

¹²¹ *Id.* § 251.55(b).

¹²² *Id.* § 251.56(b).

¹²³ Pub. L. No. 116-260, Div. Z, 134 Stat. 1182, 2418 (2020).

¹²⁴ *Id.* § 3102, 134 Stat. 2514-2516.

¹²⁵ *Id.* § 3103, 134 Stat. 2516.

authorize production of not less than 25 gigawatts of electricity from wind, solar, and geothermal energy projects by not later than 2025, through management of public lands and administration of Federal laws.”¹²⁶

DOI and BLM have taken actions to implement these requirements and authorizations. For example, DOI created the “Renewable Energy Coordination Offices” (RECOs)¹²⁷ and reached a memorandum of understanding (MOU) with relevant agencies regarding promotion of renewables.¹²⁸ According to the agency, “[t]hrough the RECOs and the MOU, the BLM authorized Federal permits that added 5,670 MW of clean energy to the grid in FY 2022,” nearly double the amount authorized in the previous fiscal year.¹²⁹

BLM cited the mandates and authorizations of the Energy Act in a new final rule that amends the regulations governing renewable energy on federal lands under its purview.¹³⁰ The final rule authorizes BLM to issue renewable energy leases by application in certain areas rather than competitive auctions.¹³¹ According to BLM, this approach is intended to give the agency more flexibility to work with industry partners on pilot renewable energy projects and other experimental efforts on federal lands, allowing the agency to “maximize interest in renewable energy leasing and accelerate the deployment of solar and wind energy on the public lands.”¹³² The rule also lowers per-acre rental rates and capacity fees for renewable projects, with the intended result of lower costs for energy deployment, increasing renewable energy market penetration in domestic energy production.¹³³

The Infrastructure Investment and Jobs Act and the Fiscal Responsibility Act also each featured a number of provisions intended to stimulate renewable energy production and availability. These include transmission grid enhancement measures and amendments to transmission siting policies that would increase the capacity to deliver renewable energy generation into the power market¹³⁴ and federal loan and grant programs intended to encourage the development of renewable energy technology.¹³⁵ The laws do not directly address energy production on BLM-managed lands.

Proposals and Considerations in the 118th Congress

Members have introduced a variety of legislation in the 118th Congress intended to guide policy for energy exploration and production on federal lands. For example, the Public Land Renewable Energy Development Act of 2023 (H.R. 178) would require BLM to establish “priority areas”

¹²⁶ *Id.* § 3104, 134 Stat. 2516.

¹²⁷ U.S. Department of the Interior, Bureau of Land Management, *Establishment of Renewable Energy Coordination Offices* (May 31, 2022), <https://www.blm.gov/policy/ib-2022-040>.

¹²⁸ Memorandum of Understanding between United States Department of the Interior and United States Department of Agriculture, United States Department of Defense, United States Department of Energy, and United States Environmental Protection Agency to Improve Public Land Renewable Energy Coordination (Jan. 6, 2022), <https://www.doi.gov/sites/doi.gov/files/mou-esb46-04208-pub-land-renewable-energy-proj-permit-coord-doi-usda-dod-epa-doe-2022-01-06.pdf>.

¹²⁹ U.S. Department of the Interior, Bureau of Land Management, *Public Land Renewable Energy- Fiscal Year 2022 Report to Congress* (2023), <https://www.blm.gov/sites/default/files/docs/2023-12/FY22%20Report%20to%20Congress%2003Nov2023.pdf>, at 4.

¹³⁰ Rights-of-Way, Leasing, and Operations for Renewable Energy, 89 Fed. Reg. 35364 (May 1, 2024).

¹³¹ *Id.* at 35670.

¹³² *Id.* at 35636.

¹³³ *Id.* at 35636, 35647.

¹³⁴ Infrastructure Investment and Jobs Act, Pub. L. No. 117-58 §§ 40101-40107, 135 Stat. 429, 923-941 (2021).

¹³⁵ *Id.* §§ 40201-40206, 40341-42, 135 Stat. 958-963, 1030-1032.

where policies would prioritize renewable energy development.¹³⁶ A number of other bills would direct DOI to conduct specific lease auctions.¹³⁷ Members have also introduced legislation intended to accelerate the application review process for various energy projects or to minimize the sort of litigation challenges to energy development activities detailed in this report.¹³⁸ Congress may also choose to respond to the administrative actions taken by BLM in its 2024 final rules pertaining to renewable energy projects and land management/sustainability principles.

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¹³⁶ H.R. 178, 118th Cong. (2023).

¹³⁷ *See, e.g.*, S. 947, 118th Cong. Div. B, Title I (2023) (directing a minimum of four lease sales a year in certain Western states); S. 3289, 118th Cong. (2023) (directing DOI to lease certain lands in the Coastal Plain of the National Petroleum Reserve in Alaska).

¹³⁸ *See e.g.*, S.1456, 118th Cong. (2023); S. 947, Div. B, Title II.