

NET-ZERO REQUIREMENTS FOR FEDERAL OIL & GAS
LEASES: A DURABLE WAY FOR THE EXECUTIVE BRANCH
TO CURB GREENHOUSE GAS EMISSIONS

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ABSTRACT

The Biden Administration committed the United States to achieving net-zero emissions by 2050. Without congressional action on the issue, the Administration’s reach was limited. However, nearly a quarter of all U.S. greenhouse gas (GHG) emissions derive from fossil fuels produced under federal permits. Thus, because the executive branch has significant discretion in the oil and gas permitting process, commentators have suggested that an administration could unilaterally limit U.S. GHG emissions by (1) requiring new federal oil and gas leases to be carbon neutral or (2) updating the lease and permit terms for existing federal leases to require carbon neutrality. However, oil and gas producers would almost certainly challenge these actions under both the Administrative Procedure Act and *West Virginia v. EPA*’s major questions doctrine. This Article explores how net-zero requirements for federal oil and gas leases would fare under these challenges and concludes that if an administration properly structures and defends these requirements, then courts would likely uphold them.

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INTRODUCTION

A broad scientific consensus holds that in order to avoid the worst effects of climate change, global average temperatures must be held to an increase of 1.5 or 2 degrees Celsius above preindustrial levels.¹ Achieving this objective will require “deep, rapid, and, in most cases, immediate” greenhouse gas (GHG) emission reductions in all sectors of the global economy.² Attaining net-zero emissions is a necessary stepping stone along the path to avoiding the worst impacts of a warming planet.³ But many sectors in the United States and other nations either cannot or will not reduce their emissions rapidly enough to achieve this goal—for technological, practical, and political reasons.⁴ Indeed, global demand for fossil fuels is still rising and is not expected to peak until 2030.⁵ Thus, because fossil fuels will continue to be produced and cause a significant level of

1. Lindsay Fendt, *Why Did the IPCC Choose 2° C as the Goal for Limiting Global Warming?*, MIT CLIMATE PORTAL (June 22, 2021), <https://climate.mit.edu/ask-mit/why-did-ipcc-choose-2deg-c-goal-limiting-global-warming>.

2. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2023 SYNTHESIS REPORT: SUMMARY FOR POLICYMAKERS § B.6 (2023).

3. *Id.* § B.5. Net-negative, rather than net-zero, GHG emissions are needed to avoid devastating climate impacts in the mid to long term. And even if we achieve net-zero GHG emissions, this still will not be enough to avoid devastating climate impacts in the mid to long term. *See, e.g.*, Felicia Jackson, *Net Zero Is No Longer Enough—It’s Time for Net Negative, Policy Coherence and Robust ESG*, FORBES (Aug. 30, 2021, 12:29 PM), <https://www.forbes.com/sites/feliciajackson/2021/08/30/net-zero-is-no-longer-enough--its-time-for-net-negative-policy-coherence-and-robust-esg/>.

4. *See* Press Release, United Nations Climate Change, Implementation Must Accelerate to Increase Ambition Across All Fronts, Taking an All-of-Society Approach to Make Progress Towards the Paris Agreement Goals and Respond to the Climate Crisis, Finds Technical Report on First Global Stocktake, U.N. Press Release (Sept. 8, 2023), <https://unfccc.int/news/implementation-must-accelerate-to-increase-ambition-across-all-fronts-taking-an-all-of-society>.

5. Brad Plumer, *Energy Agency Sees Peaks in Global Oil, Coal and Gas Demand by 2030*, N.Y. TIMES (Oct. 24, 2023), <https://www.nytimes.com/2023/10/24/climate/international-energy-agency-peak-demand.html>.

emissions to continue for the near- to medium-term, achieving “net zero”⁶ will require carbon sequestration⁷ on a global scale.⁸

As the world’s second-largest emitter of GHGs,⁹ the United States has an outsize responsibility in the global effort to achieve net-zero emissions. Unfortunately, the challenging politics of climate change have limited Congress’s ability to pass comprehensive legislation on the issue.¹⁰ Because there is only so much that states, municipalities, and private entities can do to affect national climate outcomes, the political reality is that the federal executive branch provides the United States’s most viable avenue for broad governmental climate action. Thus, any opportunity for the executive branch to significantly impact emissions is critical.¹¹ Because federally permitted fossil fuel development occupies nearly a quarter of the United States’ GHG emissions,¹² imposing net-zero requirements on federal oil and gas leases provides such an opportunity.

In Part I, this Article provides background information on net-zero goals and the legal framework supporting federal oil and gas leasing. Next, in Part II, this Article explains the relevant federal agencies’ authority to impose net-zero requirements and analyzes the likelihood that these requirements could withstand legal challenges under both the Administrative Procedure Act (APA) and major questions doctrine (MQD). Specifically, Part II discusses and supplements commentators’ work in light of recent administrative and case law developments in both the onshore and offshore contexts and assesses the likelihood that a federal net-zero requirement would withstand an APA challenge. Then, Part III looks to *West Virginia v. EPA*¹³ and analyzes how courts would assess such a requirement under a MQD challenge. Part IV concludes by suggesting ways that a presidential administration could most effectively impose meaningful net-zero requirements for federal oil and gas leases to withstand legal challenges and help the U.S. achieve its climate goals.

6. “Net zero refers to a state in which the greenhouse gases going into the atmosphere are balanced by removal out of the atmosphere.” *What Is Net Zero?*, UNIV. OF OXFORD, <https://netzero-climate.org/what-is-net-zero-2/> (last visited Sept. 2, 2024).

7. “Carbon sequestration is the process of capturing and storing atmospheric carbon dioxide.” *What is Carbon Sequestration?*, USGS, <https://www.usgs.gov/faqs/what-carbon-sequestration> (last visited Sept. 2, 2024).

8. See INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 2, § B.6.3.

9. *Global Emissions*, CTR. FOR CLIMATE & ENERGY SOLS., <https://www.c2es.org/content/international-emissions/> (last visited Sept. 2, 2024).

10. See Elaine Kamarck, *The Challenging Politics of Climate Change*, BROOKINGS (Sept. 23, 2019), <https://www.brookings.edu/articles/the-challenging-politics-of-climate-change/>.

11. This Article refers to the “executive branch” and the “executive” to refer to the portions of the executive branch to which Congress has vested discretion over oil and gas leasing.

12. MATTHEW D. MERRILL, BENJAMIN M. SLEETER, PHILIP A. FREEMAN, JINXUN LIU, PETER D. WARWICK, & BRADLEY C. REED, USGS, FEDERAL LANDS GREENHOUSE GAS EMISSIONS AND SEQUESTRATION IN THE UNITED STATES—ESTIMATES FOR 2005–14, at 1 (2018), <https://doi.org/10.3133/sir20185131>; Nathan Rantledge, Laura Zachary, & Chase Huntley, *Emissions from Fossil Fuels Produced on US Federal Lands and Waters Present Opportunities for Climate Mitigation*, 171 CLIMATIC CHANGE, Mar. 2022, at 1, 1.

13. 597 U.S. 697 (2022).

I. BACKGROUND OF NET-ZERO GOALS AND FEDERAL OIL AND GAS LEASING

To properly contextualize the possibility of executive-imposed net-zero requirements, this Part begins with a review of net-zero requirements generally. Next, this Part discusses current federally permitted oil and gas production. Lastly, this Part summarizes the federal leasing processes for onshore and offshore¹⁴ oil and gas development.

A. Net-Zero Emissions

The Biden Administration committed the United States to achieving a “carbon pollution-free electricity sector by 2035 and net-zero emissions economy-wide by no later than 2050.”¹⁵ Other nations have also committed to achieving net-zero emissions, as have many local governments and corporations¹⁶—including energy companies. For example, Shell, BP, ExxonMobil, and Chevron have all pledged to reach net-zero emissions by the middle of this century.¹⁷

Indeed, nearly fifty percent of the world’s 2,000 largest companies have net-zero targets in place.¹⁸ But not all net-zero commitments are created equal. For example, most organizations with net-zero commitments consider only their Scope 1 emissions, which are emissions arising directly from organizational operations.¹⁹ Fewer organizations also include Scope 2 emissions, which reflect their use of grid-supplied energy.²⁰ Even fewer organizations’ net-zero commitments include Scope 3 emissions, which goes beyond production-related emissions to encompass their products’ full life cycles, including emissions from their supply chain, distribution, end-use, and eventual disposal.²¹ Despite these commitments, no major

14. In the United States, onshore oil and gas development is managed primarily by the Bureau of Land Management, while offshore leases are managed by the Bureau of Ocean and Energy Management and the Bureau of Safety and Environmental Enforcement. *See infra* Section I.C.

15. Exec. Order No. 14,057, 86 Fed. Reg. 70935 (Dec. 8, 2021).

16. *For a Livable Climate: Net-Zero Commitments Must be Backed by Credible Action*, UNITED NATIONS: CLIMATE ACTION, <https://www.un.org/en/climatechange/net-zero-coalition> (last visited Sept. 5, 2024) (“[A] growing coalition of countries, cities, businesses and other institutions are pledging to get to net-zero emissions. More than 140 countries, including the biggest polluters—China, the United States, India and the European Union—have set a net-zero target, covering about 88% of global emissions. More than 9,000 companies, over 1000 cities, more than 1000 educational institutions, and over 600 financial institutions have joined the Race to Zero, pledging to take rigorous, immediate action to halve global emissions by 2030.”) (internal URLs omitted).

17. Nick Ferris, *Exclusive: How Just 25 Oil Companies Are Set to Blow The World’s 1.5°C Carbon Budget*, ENERGY MONITOR (Jan. 26, 2023), <https://www.energymonitor.ai/sectors/industry/exclusive-how-just-25-oil-companies-are-set-to-blow-the-worlds-1-5c-carbon-budget/>.

18. NET ZERO TRACKER, NET ZERO STOCKTAKE 2023, at 19 (2023), <https://zerotracker.net/analysis/net-zero-stocktake-2023>.

19. Scope 1 emissions arise from sources that are directly within an organization’s ownership or control, such as its factories, vehicles, heating and cooling, etc. *See* Albert C. Lin, *Making Net Zero Matter*, 79 WASH. & LEE L. REV. 679, 693 (2022).

20. *Id.*

21. *Id.*

fossil fuel-producing countries or companies have committed to phasing out fossil fuels.²²

Even if both governments and companies eventually do reduce their emissions, many will still produce significant amounts of GHGs in the near- and medium-term, requiring these organizations to offset their emissions if they wish to achieve net zero. Entities can offset their emissions through their own operations or, more commonly, by purchasing credits from a third-party offset provider.²³ Whether generated in-house or by third-party providers, offsets are created either by preventing emissions that would have otherwise occurred—like by preventing deforestation or plugging abandoned oil and gas wells that leak methane—or through carbon sequestration.²⁴ The most viable methods for removing carbon from the atmosphere are forestry, which is common but less effective than necessary to offset emissions on a global scale, and direct air capture and storage (DACs), an emerging technology which holds great potential but is not yet scalable to the degree necessary to offset emissions on a global scale.²⁵ While valid concerns remain about today’s carbon offset market,²⁶ the scientific consensus is that significant carbon removal is critical to U.S. and international efforts to combat climate change.²⁷

B. Oil and Gas Production on Federal Lands

Energy companies produce a vast amount of oil and gas on federally owned lands and waters each year, and, unsurprisingly, these fuels lead to significant GHG emissions. For example, between 2005 and 2017, over 27% of U.S. fossil fuel production came from federally owned lands and waters.²⁸ This level of production led to roughly 23% of all domestic GHG emissions over the same period.²⁹ And the amount of domestic production and corresponding emissions have increased greatly in recent years, with the percent of domestic emissions derived from public lands tripling since

22. See NET ZERO TRACKER, *supra* note 18, at 3.

23. “Two-thirds of the world’s biggest companies with net-zero targets are using ‘carbon offsets’ to help meet their climate goals.” Josh Gabbatiss, *Analysis: How Some of the World’s Largest Companies Rely on Carbon Offsets to ‘Reach Net-Zero,’* CARBONBRIEF (Sept. 27, 2023), <https://interactive.carbonbrief.org/carbon-offsets-2023/companies.html>.

24. See Angelo Gurgel, *Carbon Offsets*, MIT CLIMATE PORTAL, <https://climate.mit.edu/explainers/carbon-offsets> (last visited Sept. 9, 2024).

25. Lin, *supra* note 19, at 690. DACS projects capture carbon dioxide from the atmosphere via chemical processes and store it in underground reservoirs. *Id.* at 691.

26. See, e.g., Lin, *supra* note 19, at 688; see also Gabbatiss, *supra* note 23 (explaining that many projects funded by offset sales have failed to deliver, and that critics of offsets argue that they merely provide the world’s largest emitters with a “licen[se] to pollute”).

27. See, e.g., Fendt, *supra* note 1.

28. Ratledge, Zachary, & Huntley, *supra* note 12.

29. *Id.* at 5. This lifecycle analysis started with emissions from the production process, like flaring, includes downstream emissions, like transportation leaks, and finishes with the ultimate burning of the fuel for energy purposes. Also, because a portion of domestically produced fossil fuels are exported and the U.S. also imports fossil fuels from other countries, the amount of domestic production is not directly tied to total U.S. GHG emissions.

2012.³⁰ Domestic fossil fuel production is still growing, with total U.S. crude oil production exceeding thirteen million barrels per day in December 2023, the most of any nation in history.³¹

Energy companies can only develop oil and gas resources on public lands through federally provided leases, development plan approvals, and drilling permits.³² Because Congress has plenary power over federal public lands—both onshore and offshore—federal statutes provide the legal framework governing oil and gas leasing on those lands. Key federal oil and gas leasing statutes include the Mineral Leasing Act (MLA), which governs onshore leasing, and the Outer Continental Shelf Lands Act (OCSLA), which governs offshore leasing.³³ A variety of other statutes also apply to oil and gas leasing and are discussed in greater detail below.³⁴ While these statutes provide the structure for the oil and gas leasing process, they leave significant discretion to the executive branch. This Article explores the contours of this discretion under the assumption that an administration seeks to limit GHG emissions in line with prevailing scientific recommendations, as the Biden Administration largely did.³⁵

When President Biden was on the campaign trail, he promised that his administration would allow “no new drilling, period.”³⁶ In line with this promise, shortly after Biden took office, his Administration issued an executive order “pausing” all oil and gas leasing on federal lands to review the environmental impacts of these leases and “restore balance on America’s public lands and waters to benefit current and future generations.”³⁷ Since then, however, the Biden Administration struggled to fulfill this promise, in part due to a series of conflicting court rulings, some striking

30. USAFacts Team, *How Much Oil and Gas Comes from Federal Territory?*, USAFACTS, <https://usafacts.org/articles/how-much-oil-and-gas-comes-from-federal-territory/> (Apr. 6, 2023).

31. Naser Ameen & Merek Roman, *Permian Production Forecast Growth Driven By Well Productivity, Pipeline Capacity*, U.S. ENERGY INFO. ADMIN. (Aug. 21, 2024), <https://www.eia.gov/todayinenergy/detail.php?id=62884>.

32. See *infra* Section I.C.

33. See *infra* Section I.C.

34. See *infra* Section I.C. There are also a variety of other statutes related to federal oil and gas leasing but not discussed by this Article. Most of these apply to oil and gas development in specific locations, such as 1980’s Public Law 96-514, which authorized “an expeditious program of competitive leasing of oil and gas” in the National Petroleum Reserve in Alaska. Notably, Public Law 96-514 granted half of all receipts from these lease sales, rentals, bonuses, and royalties to the State of Alaska for specified purposes. *Alaska Oil and Gas Lease Sales*, U.S. DEP’T OF THE INTERIOR: BUREAU OF LAND MGMT., <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/leasing/regional-lease-sales/alaska> (last visited Sept. 9, 2024).

35. See *supra* Section I.A.

36. Lisa Friedman, *Biden Said He Would Stop Drilling. Then Reality Hit.*, N.Y. TIMES (Sept. 28, 2023), <https://www.nytimes.com/2023/09/28/climate/biden-drilling-leases.html>.

37. Exec. Order No. 14,008, 86 Fed. Reg. 7619 (Jan. 27, 2021); Matthew Brown, *U.S. to Gauge Climate Damage from Federal Oil and Gas Sales*, ASSOCIATED PRESS (Oct. 29, 2021, 5:11 PM), <https://apnews.com/article/climate-joe-biden-business-environment-and-nature-environment-30b6d0c8de10b0c1381fb1cf4694e53d>; Press Release, Bureau of Land Mgmt., Fact Sheet: President Biden to Take Action to Uphold Commitment to Restore Balance on Public Lands and Waters, Invest in Clean Energy Future (Jan. 27, 2021), <https://www.blm.gov/press-release/fact-sheet-president-biden-take-action-uphold-commitment-restore-balance-public-lands>.

down the executive order and others upholding it.³⁸ Before the courts could fully resolve the issue, the Administration restarted lease sales, albeit at significantly lower levels than in the past.³⁹

One reason why the Biden Administration restarted lease sales was that during negotiations over the Inflation Reduction Act of 2022 (IRA), Senator Joe Manchin, a crucial swing vote, succeeded in tying new renewable energy development to continued oil and gas leasing.⁴⁰ Under § 50265 of the IRA, the Department of the Interior (DOI) may only issue offshore wind development leases if it has also offered at least sixty million acres of offshore oil and gas development leases in the previous year.⁴¹ Similarly, the DOI may only issue onshore wind and solar rights-of-way if it has held onshore oil and gas lease sales totaling at least 2 million acres (or fifty percent of the acreage for which expressions of interest were submitted by potential lessees) in the previous 120 days.⁴² At the same time, the IRA also raised royalty rates, rents, and other costs imposed on energy developers, potentially making the required oil and gas leases less economical for would-be lessees.⁴³

Along with court rulings and § 50265 of the IRA, the Biden Administration's effort to pause oil and gas leasing on federal lands also came up against the realities of governing a country that remains both politically and economically tied to fossil fuels.⁴⁴ In fact, the Biden Administration

38. In the most prominent of these cases, *Louisiana v. Biden*, a Louisiana federal district court invalidated the Biden pause, both onshore and offshore, explaining that “[t]he discretion to stop the lease process for eligible lands is not within the discretion of the agencies by law under either the OCSLA or the MLA.” 622 F. Supp. 3d 267, 293 (W.D. La. 2022). But in *Western Energy Alliance v. Biden*, a Wyoming federal district court upheld the Biden pause as applied to onshore leases under the MLA. No. 21-CV-56-SWS, 2022 WL 18587039, at *8–10 (D. Wyo. Sept. 2, 2022). The court noted that “It is undisputed that, pursuant to this statute, prior to a lease sale the Secretary has discretion to decide which lands will be offered for lease.” *Id.* at *11 (quoting *Impact Energy Res., LLC v. Salazar*, No. 2:09-CV-435, 2010 WL 3489544, at *5 (D. Utah Sept. 1, 2010), *aff’d*, 693 F.3d 1239 (10th Cir. 2012)). It also found that the administrative record adequately supported the DOI’s decision “that the lands were not ‘available’ because additional analysis was needed to ensure compliance with NEPA.” *Id.* at *10; *see also* *Alaska Indus. Dev. & Exp. Auth. v. Biden*, 685 F. Supp. 3d 813, 842 (D. Alaska 2023) (finding that “a temporary moratorium on post-sale oil and gas activities” on the Coastal Plain of the Alaska National Wildlife Refuge was “well within the government’s authority”).

39. As of 2021, there has been a ninety percent reduction in actual lease sales compared to 2006 levels, with energy companies often failing to bid for available leases. USAFacts Team, *supra* note 30; *see also* *Drilling Down on the Federal Leasing Facts*, AM. PETROLEUM INST., <https://www.api.org/news-policy-and-issues/exploration-and-production/drilling-down-on-the-federal-leasing-facts> (last visited Sept. 5, 2024).

40. Friedman, *supra* note 36.

41. 43 U.S.C. § 3006(b)(2); *see also* *IRA Section 50265—Requiring Oil & Gas Lease Sales in Exchange for Solar and Wind Development*, INFLATION REDUCTION ACT TRACKER, <https://iratracker.org/programs/ira-section-50265-requiring-oil-gas-lease-sales-in-exchange-for-solar-and-wind-development/> (last visited Sept. 30, 2024).

42. *See* sources cited *supra* note 41. These requirements remain in place for ten years from the date of the IRA’s enactment.

43. USAFacts Team, *supra* note 30.

44. Elizabeth Kolbert, *Why Did the Biden Administration Approve the Willow Project?*, THE NEW YORKER (Mar. 13, 2023), <https://www.newyorker.com/news/daily-comment/why-did-the-biden-administration-approve-the-willow-project>. The *New Yorker* reported that the Administration approved Willow largely for political reasons—both to lower gas prices and to move public perceptions of President Biden toward the center in preparation for the 2024 election.

eventually issued oil and gas leases on public lands and waters. Most notably, the Bureau of Land Management (BLM) approved the Willow Project, which authorized over two hundred new wells, disappointing environmental advocates.⁴⁵ The Biden Administration planned three controversial lease sales for the Gulf of Mexico as well.⁴⁶

What emerged was a picture of the Biden Administration attempting to balance its desire to curb fossil fuel production—and its associated emissions—with the political and economic realities of the contemporary United States. Given this background, it is easy to see why an administration seeking to limit GHG emissions would find net-zero requirements for federal oil and gas leases appealing. These requirements would allow oil and gas production on federal lands and waters to continue, but they would also provide an administration with an easier pathway toward its overall net-zero goals and evidence that it has meaningfully restrained oil and gas producers. Although the Biden Administration did not call for a net-zero requirement for federal oil and gas leases, and the incoming Trump administration seems unlikely to do so either, commentators have convincingly argued that such a requirement would be both practical and legally defensible.⁴⁷

C. The Leasing Process

The legal framework under MLA and OCSLA splits the process for federal oil and gas development into two roughly parallel systems: one for onshore leases and another for offshore leases. Congress delegated responsibility for executing both statutes to the DOI, with the BLM implementing onshore leasing and the Bureau of Ocean Energy Management (BOEM) and related Bureau of Safety and Environmental Enforcement (BSEE) responsible for offshore leasing.⁴⁸ This Article refers to the BLM, BOEM and BSEE collectively as “Leasing Agencies.” This Section reviews the fundamentals of both the onshore and offshore leasing systems.

1. Onshore Leasing

All onshore federal oil and gas leasing⁴⁹ is subject to the MLA, but because it is managed by the BLM, onshore leasing is also governed by

45. BUREAU OF LAND MGMT., RECORD OF DECISION: WILLOW MASTER DEVELOPMENT PLAN 3 (2023).

46. The Associated Press, *Biden Calls for up to 3 Offshore Oil Leases in Gulf of Mexico, Upsetting Both Sides*, NPR (Sept. 29, 2023, 2:20 PM), <https://www.npr.org/2023/09/29/1202698332/biden-offshore-oil-and-gas-leases-gulf-of-mexico>.

47. Jamie Gibbs Pleune, John C. Ruple, & Nada Wolff Culver, *The BLM's Duty to Incorporate Climate Science into Permitting Practices and a Proposal for Implementing a Net Zero Requirement into Oil and Gas Permitting*, 32 COLO. NAT. RES., ENERGY & ENV'T. L. REV. 253, 258, 337–40 (2021).

48. 30 U.S.C. § 181; 43 C.F.R. § 3171.1 (2024).

49. “The BLM manages the Federal government’s onshore subsurface mineral estate . . .” *About the BLM Oil and Gas Program*, U.S. DEP’T OF THE INTERIOR: BUREAU OF LAND MGMT., <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/about> (last visited Sept. 12, 2024). In doing so, the BLM is responsible for the development of oil and gas resources underlying lands

the Federal Land Policy and Management Act (FLPMA) as well as BLM regulations and internal policy guidance.⁵⁰ These authorities establish a three-stage process the BLM follows for each lease: (1) land use planning, (2) lease sales, and (3) drilling permitting.

The process begins with land use planning, where BLM field offices develop “resource management plans” (RMPs) for “planning areas” within their jurisdiction.⁵¹ Planning areas can be vast, sometimes spanning millions of acres. RMPs dictate which parts of each planning area are “available” for oil and gas leasing and establish the conditions for any eventual leases.⁵² RMPs also typically include a “reasonably foreseeable development scenario” that projects the scope and pace of oil and gas development in the planning area.⁵³ BLM regulations require all RMPs to include a National Environmental Policy Act (NEPA) environmental impact statement (EIS).⁵⁴

Next, after an RMP authorizes oil and gas development on “available” lands, the BLM must conduct lease sales for the specified parcels under MLA-mandated schedules.⁵⁵ The BLM uses a competitive bid process to offer leases for sale to potential developers.⁵⁶ At this stage, the BLM can also impose terms and conditions on leases, including to protect the environment.⁵⁷ Leases grant lessees the right to explore, drill, and extract resources from the leased land—although lessees may not begin drilling and removal operations without an approved drilling permit.⁵⁸

Accordingly, after the BLM sells a lease, the lessee must apply for and receive BLM approval of a variety of site-specific permits—including applications for permit to drill (APDs) for all drilling activities—before

managed by the BLM, as well as those managed by the USDA Forest Service and other federal surface owners. *Id.* The BLM also manages aspects of oil and gas development of the Tribal mineral estate. *Id.* The BLM is also responsible for leasing for the development of split estates, where nonfederal entities own the surface, but the federal government owns development rights for the underlying minerals. *Leasing and Development of Split Estate*, U.S. DEP’T OF THE INTERIOR: BUREAU OF LAND MGMT., <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/leasing/split-estate> (last visited Sept. 12, 2024). As of 2021, the BLM managed 37,496 Federal oil and gas leases covering 26.6 million acres, with nearly 96,100 wells. U.S. DEP’T OF THE INTERIOR, REPORT ON THE FEDERAL OIL AND GAS LEASING PROGRAM 4 (2021), <https://www.doi.gov/sites/doi.gov/files/report-on-the-federal-oil-and-gas-leasing-program-doi-co-14008.pdf>.

50. *See* WildEarth Guardians v. Zinke, 368 F. Supp. 3d 41, 52 (D.D.C. 2019).

51. *Id.* at 54; 43 U.S.C. § 1712(a); 43 C.F.R. § 1601.0–5(n) (2017); 43 C.F.R. § 1610.1 (2017).

52. 43 U.S.C. § 1712(a), (c)(4).

53. *Land Use Planning and NEPA Compliance for Oil and Gas Leasing*, U.S. DEP’T OF THE INTERIOR: BUREAU OF LAND MGMT., <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/leasing/land-use-planning> (last visited Sept. 8, 2024).

54. 43 C.F.R. § 1601.0–6 (2017).

55. 30 U.S.C. § 226(b)(1)(A); 43 C.F.R. § 3120.1-2 (2024).

56. 30 U.S.C. § 226 (b)(1)(A); *see also* Memorandum from the BLM Principal Deputy Director on Oil and Gas Leasing—Land Use Planning and Lease Parcel Reviews to all Field Officials (Nov. 21, 2022), <https://www.blm.gov/policy/im-2023-010>.

57. 43 C.F.R. § 3101.13 (2024).

58. 43 C.F.R. § 3101.12 (2024).

commencing oil and gas development.⁵⁹ BLM regulations dictate the contents of these applications, and all applications are subject to BLM review.⁶⁰ Further, the BLM can condition application approval on the lessee's adoption of "reasonable measures" to mitigate environmental impacts.⁶¹ Finally, before approving an APD, the BLM must verify that it complies with the governing RMP and conduct additional NEPA analysis.⁶²

2. Offshore Leasing

The fundamentals of the offshore leasing process are similar to those of the onshore process, but the offshore system is more complex, often involving more federal and state actors. OCSLA, passed in 1953, vested the DOI with responsibility for managing offshore oil and gas leasing.⁶³ Since then, a variety of DOI entities have fulfilled this responsibility. In a multiyear process from 2010–2011, the DOI created the contemporary offshore leasing regulatory framework by secretarial order, creating both the BOEM and the BSEE.⁶⁴ The DOI delegated responsibility for resource management to the BOEM and tasked BSEE with developing and enforcing safety and environmental regulations related to offshore oil and gas development.⁶⁵

Within this framework, the BOEM leads the process for approving offshore oil and gas development, which consists of four distinct stages:

59. See 30 U.S.C. § 226(f); see also *Applications for Permits to Drill*, U.S. DEP'T OF THE INTERIOR: BUREAU OF LAND MGMT., <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/operations-and-production/permitting/applications-permits-drill> (last visited Sept. 12, 2024).

60. 43 C.F.R. § 3162.3-1(d), (e) (2024).

61. 43 C.F.R. § 3101.12 (2024); see *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 54 (D.D.C. 2019). However, the *Zinke* court also noted that any "reasonable measures" are limited by the lessee's surface use rights under the lease.

62. 43 C.F.R. § 3162.5-1 (2024).

63. 43 U.S.C. § 1344(a); 43 U.S.C. § 1331(b); 43 U.S.C. § 1331(a) (Under OCSLA, the "term 'outer Continental Shelf' means-- (1) all submerged lands lying seaward and outside of the area of lands beneath navigable waters as defined in section 1301 of this title, and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control or within the exclusive economic zone of the United States and adjacent to any territory of the United States; and (2) does not include any area conveyed by Congress to a territorial government for administration.").

64. SEC'Y OF THE INTERIOR, ORDER NO. 3299, ESTABLISHMENT OF THE BUREAU OF OCEAN ENERGY MANAGEMENT, THE BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT, AND THE OFFICE OF NATURAL RESOURCES REVENUE (2011), https://www.doi.gov/sites/doi.gov/files/elips/documents/3299a2-establishment_of_the_bureau_of_ocean_energy_management_the_bureau_of_safety_and_environmental_enforcement_and_the_office_of_natural_resources_revenue.pdf; see also Press Release, Dep't of Interior, Interior Department Completes Reorganization of the Former MMS (Sept. 30, 2011), <https://www.doi.gov/news/pressreleases/Interior-Department-Completes-Reorganization-of-the-Former-MMS>.

65. *Working with the Bureau of Safety and Environmental Enforcement*, BOEM, <https://www.boem.gov/working-bureau-safety-and-environmental-enforcement> (last visited Sept. 6, 2024). BOEM and BSEE work together closely and have formed several memorandums of agreement to "minimize duplication of effort, promote consistency in procedures and regulations, and resolve disputes," including one specific to coordinating their NEPA and environmental compliance efforts. *Id.*; Memorandum of Agreement on Bureau of Ocean Energy Management and Bureau of Safety and Environmental Enforcement: NEPA and Environmental Compliance 1 (Oct. 1, 2018) [hereinafter NEPA MOA], <https://www.boem.gov/sites/default/files/documents/oil-gas-energy/2018-BOEM-BSEE-MOA-NEPA-Environmental-Compliance.pdf>.

(1) creation of five-year planning programs,⁶⁶ (2) lease sales,⁶⁷ (3) exploration,⁶⁸ and (4) development and production.⁶⁹ The BOEM is primarily responsible for managing the planning, lease sale, and exploration stages, while the BSEE plays an advisory and oversight role for those stages and conducts all field operations.⁷⁰ However, the two bureaus' roles shift at the development and production stage, with BOEM responsible for reviewing exploration, development, and production plans and the BSEE responsible for APD review and approval.⁷¹ A more detailed description of each of the four offshore leasing stages follows.

First, the BOEM prepares a five-year leasing program that governs all offshore leasing under U.S. jurisdiction during the program period.⁷² Each program establishes a schedule of lease sales for the period, including the time, size, and general location of lease offerings.⁷³ When developing five-year programs, the BOEM considers a variety of factors, including balancing national energy needs with a program's likely economic, social, and environmental impacts.⁷⁴ The BOEM's development of five-year programs also triggers the NEPA process.⁷⁵

Once the BOEM puts a five-year program in place, it proceeds with a multistep lease sale process. This process starts with information gathering, nominations for areas to either open to or protect from leasing, and NEPA analysis.⁷⁶ Using this information, the BOEM produces a list of areas it recommends for leasing, subject to various input and approval requirements.⁷⁷ After a final list of areas is approved, BOEM conducts lease sales through competitive bidding pursuant to the five-year program's mandated schedule.⁷⁸

Next, lessees planning oil and gas exploration under an OCSLA lease must submit a detailed exploration plan for BOEM approval, which is

66. 43 U.S.C. § 1344(a); *see also* Louisiana v. Biden, 622 F. Supp. 3d 267, 277 (W.D. La. 2022).

67. 43 U.S.C. §§ 1337, 1345.

68. 43 U.S.C. § 1340.

69. 43 U.S.C. § 1351; *see also* CONG. RSCH. SERV., RL33404, OFFSHORE OIL AND GAS DEVELOPMENT: LEGAL FRAMEWORK 14 (2018) [hereinafter Offshore Report].

70. *See* NEPA MOA, *supra* note 65, at 1, 4–5. In this context, “field operations” refers to on-the-ground drilling activities, as opposed to administrative steps such as lease sales, drilling approvals, etc.

71. *See id.* As described above, the BSEE plays an important role at all stages of the offshore leasing process, and especially at development and production stage. But for the purposes of simplicity, and because BOEM takes the lead in this the overall leasing process, this Article sometimes refers only to BOEM. In doing so, the author intends to include BSEE and recognize its critical work. Similarly, this Article's references to “Leasing Agencies” include the BSEE where applicable.

72. Offshore Report, *supra* note 69, at 7.

73. 43 U.S.C. § 1344(a), (e).

74. *Id.*; Offshore Report, *supra* note 69, at 7.

75. Offshore Report, *supra* note 69, at 7–8; *see* Nat. Res. Def. Council v. Hodel, 865 F.2d 288, 310, 319 (D.C. Cir. 1988).

76. 30 C.F.R. §§ 556.302, 556.304 (2024); Offshore Report, *supra* note 69, at 11.

77. Offshore Report, *supra* note 69, at 7. For example, the BOEM must submit its proposed five-year program to the governors of affected states, as well as Congress and the President.

78. 43 U.S.C. § 1337 (a)(1); *see* Offshore Report, *supra* note 69, at 11–12.

subject to the NEPA process.⁷⁹ However, BOEM regulations mandate that the BOEM acts on exploration plan reviews within thirty days—meaning that due to this tight timeline, substantive NEPA review is often either borrowed from earlier stages of the leasing process or left to the development and production stage.⁸⁰ Any actual drilling conducted at this stage also requires BSEE approval of an APD.⁸¹

In the final stage—development and production—when operators seek to begin full drilling and extraction operations, lessees must again submit detailed plans for BOEM review, but this time these plans are scaled up to reflect the broader scope of their operations as compared to the exploration stage.⁸² Accordingly, the specific type of plan required at the production and development stage depends on the location, extraction technology, and scope of the project the lessee plans to conduct. BOEM approval of any such plan qualifies as a major agency action subject to NEPA, although it may not always require a new EIS.⁸³ As with the exploration phase, any actual drilling requires site-specific APDs, BOEM approval of which is also subject to NEPA.⁸⁴

Thus, despite the many differences between onshore and offshore leasing, the key phases of both leasing processes are similar. The onshore process includes land use planning, leasing, and drilling, while the offshore process consists of the creation of five-year programs, lease sales, exploration, and development and production. For organizational simplicity, the remainder of this Article assumes that both the onshore and offshore leasing processes proceed in three stages: *planning*—including both onshore land use planning and offshore five-year program planning; *leasing*—including both onshore and offshore lease sales; and *drilling*—including agency review of exploration and development plans and APDs for both onshore and offshore operations.

II. FEDERAL NET-ZERO REQUIREMENTS WOULD LIKELY WITHSTAND AN APA CHALLENGE

Congress has vested the Leasing Agencies with significant authority to mitigate the environmental harm caused by activities they permit, including harm to the climate. By applying this mitigation authority, the executive branch could add a carbon-neutrality requirement to all *new* federal oil and gas leases. In many cases, the Leasing Agencies could amend *existing* leases with similar requirements as well. These requirements would mandate that lessees offset the carbon emissions from their oil and gas production activities under the lease. Adding a net-zero requirement

79. 43 U.S.C. § 1340(b), (c); Offshore Report, *supra* note 69, at 13–14.

80. 30 C.F.R. § 550.232(c) (2024); Offshore Report, *supra* note 69, at 13–14.

81. 30 C.F.R. §§ 250.410–469 (2024); Offshore Report, *supra* note 69, at 13–14. Operators sometimes choose to drill during the exploration phase, but in other cases it is not required.

82. 30 C.F.R. §§ 550.201–262; Offshore Report, *supra* note 69, at 14.

83. Offshore Report, *supra* note 69, at 14.

84. *Id.*

to federal oil and gas leases would provide the executive branch a way to allow necessary drilling while also meaningfully limiting the resulting fossil fuel's impact on net GHG emissions.

A broad Leasing Agency implementation of net-zero requirements would almost certainly be challenged in court by fossil fuel producers and state attorneys general, including under the APA. While commentators like Jamie Gibbs Pleune, John C. Ruple, and Nada Wolff Culver have convincingly argued that statutory authority exists for such requirements in the onshore context, because net-zero requirements have yet to be implemented, this theory has never been tested in court.⁸⁵ Moreover, Pleune, Ruple, and Culver's analysis predates the Supreme Court's decision in *West Virginia*—the debut of the contemporary MQD.⁸⁶ Thus, this Part proceeds by discussing and supplementing Pleune, Ruple, and Culver's work in light of recent administrative and case law developments in both the onshore and offshore contexts by assessing the likelihood that a federal net-zero requirement would withstand an APA challenge.

A wealth of statutes, regulations, and court decisions indicate that the Leasing Agencies have the authority to impose net-zero requirements on new oil and gas leases at both the planning and leasing stages. Significant authority also exists for an administration to add similar requirements for existing leases at the drilling stage. However, oil and gas producers would challenge these requirements in court, and these challenges would almost certainly be brought under § 706 of the APA. Section 706 challenges typically seek to block agency actions as either arbitrary and capricious or exceeding their statutory authority.⁸⁷

The agencies derive their individual mitigation authority from their respective foundational statutes—the MLA and the OCSLA—as well as from a variety of other relevant statutes and regulations. Thus, the BLM's leasing authority is subject to similar but distinct legal standards than the BOEM's leasing authority. Accordingly, this Part first explains the Leasing Agencies' general mitigation authority, which applies to all of their oil and gas leasing-related actions. Next, it discusses the Leasing Agencies' authority for net-zero requirements at the planning, leasing, and drilling stages.

A. The Leasing Agencies' General Mitigation Authority

The BLM, the BOEM, and the BSEE each have broad authority to mitigate potential environmental harms under NEPA, as well as under specific statutes and regulations relevant to onshore and offshore leasing. The Leasing Agencies can apply their mitigation authorities to any of their

85. See Pleune, Ruple, & Culver, *supra* note 47, at 314–16, 340.

86. *West Virginia v. EPA*, 597 U.S. 697, 723 (2022).

87. 5 U.S.C. § 706(2); *see infra* Section IV.A.

actions regarding oil and gas leasing, regardless of the stage of the leasing process. The contours of these standards are discussed below.

1. General Onshore Mitigation Authority

As the resource manager for all onshore federal oil and gas development, the BLM is authorized—and sometimes required—to mitigate environmental harms under the FLPMA, the MLA, and the regulations issued under these statutes. The FLPMA is the BLM’s enabling statute, and as such all BLM actions must comply with the FLPMA’s directives.⁸⁸ The FLPMA requires that in managing public lands, the BLM “shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands.”⁸⁹ Thus, if the BLM finds that an action would unnecessarily or unduly degrade federal lands, then it must prevent that outcome by either stopping the action or mitigating the harm. The FLPMA also gives the BLM a broad multiple-use mandate, requiring it to balance multiple resources and uses sustainably over time.⁹⁰ In sum, the BLM’s mitigation authority under the FLPMA flows from its “obligation to balance multiple resources, avoid permanent impairment, and to prevent unnecessary or undue degradation.”⁹¹

Next, the MLA grants the BLM broad authority, including mitigation authority, over onshore oil and gas leasing. At the outset, the MLA explains that the BLM “may” lease federal lands believed to contain oil or gas deposits.⁹² The MLA then directs the BLM to hold lease sales “for each State where eligible lands are available at least quarterly.”⁹³ But the MLA does not define “available,” thus leaving the determination of which lands are “available” to the BLM.⁹⁴ The Tenth Circuit has affirmed this authority, noting that “[a]vailable” lands are those open to leasing in the applicable [RMP] . . . when all statutory requirements and reviews have been met.”⁹⁵ The BLM has further explained that “available” lands are those that are open to leasing under the MLA, that meet other statutory requirements, and “for which leasing is in the public interest.”⁹⁶ Thus, the BLM has authority to consider whether leasing is in the public interest when determining which lands are available. Further, under BLM regulations promulgated pursuant to the MLA, the BLM “require[s] that all

88. Neil Kornze, *Foreword to Federal Land Policy and Management Act of 1976*, 43 U.S.C. §§ 1701–1787, https://www.blm.gov/sites/default/files/AboutUs_LawsandRegs_FLPMA.pdf.

89. 43 U.S.C. § 1732(b).

90. 43 U.S.C. § 1732(a). BLM has defined “multiple use” as, among other things, “a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations.” 43 U.S.C. § 1702(c).

91. Pleune, Ruple, & Culver, *supra* note 47, at 315.

92. 30 U.S.C. § 226(a).

93. 30 U.S.C. § 226(b)(1)(A).

94. *W. Energy All. v. Biden*, No. 21-CV-56-SWS, 2022 WL 18587039, at *9 (D. Wyo. Sept. 2, 2022) (citing *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 843–44 (1984)).

95. *W. Energy All. v. Zinke*, 877 F.3d 1157, 1162 (10th Cir. 2017) (internal quotation marks omitted).

96. *Biden*, 2022 WL 18587039, at *9.

operations be conducted in a manner which protects [the mineral resources,] other natural resources[,] and the environmental quality.”⁹⁷

2. General Offshore Mitigation Authority

Moving to the BOEM’s leasing of offshore oil and gas resources in partnership with the BSEE, the OCSLA provides both Leasing Agencies significant authority to mitigate potential environmental harm. The OCSLA declares the congressional policy that “the outer Continental Shelf is a vital national resource reserve held by the Federal Government for the public, which should be made available for expeditious and orderly development, *subject to environmental safeguards*, in a manner which is consistent with the maintenance of competition *and other national needs*.”⁹⁸ To achieve OCSLA’s dual purposes of expeditious development and appropriate environmental safeguards, Congress explained that producers conducting oil and gas operations in the outer continental shelf should use “technology, precautions, and techniques sufficient to prevent or minimize the likelihood of . . . occurrences which may cause damage to the environment or to property, or endanger life or health.”⁹⁹ Further, the OCSLA empowers the BOEM and the BSEE to “prescribe such rules and regulations as may be necessary” and “amend such rules and regulations . . . to provide for the prevention of waste and conservation of the natural resources” of the outer continental shelf.¹⁰⁰

The Coastal Zone Management Act (CZMA) places additional requirements on the offshore leasing process by giving voice to coastal states that are affected by federal offshore oil and gas leasing. The CZMA does this by encouraging affected coastal states to enact “coastal zone management plans” that protect the environment and resources of their coastal waters.¹⁰¹ The U.S. Secretary of Commerce must approve these plans, but once they are approved, all federal (and federally permitted) activities must comply with applicable state plans.¹⁰² Thus, the CZMA allows individual states to place both broad and stage-specific mitigation requirements on the offshore federal oil and gas leasing process.¹⁰³

97. 43 C.F.R. § 3161.2 (2024). Over time, the DOI and BLM have also issued a variety of mitigation guidance documents, which have often been rescinded by subsequent administrations or expired, only to be reintroduced again later. *See, e.g.*, SEC’Y OF THE INTERIOR, ORDER NO. 3330, IMPROVING MITIGATION POLICIES AND PRACTICES OF THE DEPARTMENT OF THE INTERIOR (2013); *see also* Memorandum from BLM Assistant Director of Resources & Planning on Reinstating the Bureau of Land Management (BLM) Manual Section (MS-1794) and Handbook (H-1794-1) on Mitigation to State Directors (Oct. 5, 2021), <https://www.blm.gov/policy/im-2021-046>.

98. 43 U.S.C. § 1332(3) (emphasis added).

99. 43 U.S.C. § 1332(6).

100. 43 U.S.C. § 1334(a).

101. *See* 16 U.S.C. §§ 1451–52, 1455–56, 1462.

102. 16 U.S.C. § 1455(d)(16); CONG. RSCH. SERV., R44504, FIVE-YEAR OFFSHORE OIL AND GAS LEASING PROGRAM: HISTORY AND BACKGROUND 6 (2024).

103. Under CZMA, applicants for federal permits or approvals (including BOEM approvals for exploration and development plans as well as BSEE approval of APDs) must include a certification that the proposed activity complies with the enforceable policies of the state’s program as part of their

3. Agency Mitigation Authority Under NEPA

One of the most important similarities between the onshore and off-shore leasing systems is that both are subject to the NEPA process, which vests the agencies with additional mitigation authority. NEPA requires the Leasing Agencies to consider the potentially significant impacts of their proposed actions and to consider action alternatives that would mitigate those impacts.¹⁰⁴ While NEPA does not require the Leasing Agencies to choose the least harmful action alternative—or any specific result for that matter—a spate of recent cases has clarified that NEPA requires the Leasing Agencies to consider GHG emissions when making a variety of leasing-related decisions.

First, in *High Country Conservation Advocates v. U.S. Forest Service*,¹⁰⁵ the District Court for the District of Colorado held that the BLM was required to consider the social cost of carbon in its decision to approve exploration activities in Colorado’s Sunset Roadless Area because there was a tool available to do so.¹⁰⁶ Next, in *Sierra Club v. FERC*,¹⁰⁷ the Court of Appeals for the D.C. Circuit held that when conducting NEPA analysis for a proposed natural gas pipeline, the Federal Energy Regulatory Commission was required to quantify the indirect GHG emissions that would result from the eventual burning of the natural gas transported by the pipeline.¹⁰⁸ Extending this principle, in *WildEarth Guardians v. Zinke*,¹⁰⁹ the District Court for the District of Columbia held that the BLM was required not only to quantify the reasonably foreseeable downstream emissions of the project at issue but also to do so in aggregate.¹¹⁰

Similarly, in *Center for Biological Diversity (CBD) v. Bernhardt*,¹¹¹ the Court of Appeals for the Ninth Circuit held that the BOEM violated NEPA when it failed to consider the Liberty project’s reasonably foreseeable international downstream GHG emissions in its decision making process.¹¹² The Ninth Circuit noted that the “negligible” effect of a single project was not a valid excuse for failing to consider these emissions.¹¹³

federal application. 16 U.S.C. § 1456(c)(3)(A). The agency reviewing the application must in turn consult with the state on consistency. If the proposed development is inconsistent with the state’s coastal management plan, then the BOEM and the BSEE may not authorize the activity unless the Secretary of the Interior overrides the state objection or the applicant obtains an override from the Secretary of Commerce. CONG. RSCH. SERV., R45460, COASTAL ZONE MANAGEMENT ACT (CZMA): OVERVIEW AND ISSUES FOR CONGRESS 8–9 (2019). Thus, in addition to state-driven initiatives, one could also imagine agency officials working with state actors to develop state coastal management plans with net-zero requirements.

104. 40 C.F.R. § 1502.14. The phrase “action alternatives” refers to the range of alternatives an agency evaluates during the NEPA process.

105. 52 F. Supp. 3d 1174 (D. Colo. 2014).

106. *Id.* at 1190–91.

107. 867 F.3d 1357 (D.C. Cir. 2017).

108. *Id.* at 1374.

109. 368 F. Supp. 3d 41 (D.D.C. 2019).

110. *Id.* at 67–71.

111. 982 F.3d 723 (9th Cir. 2020).

112. *Id.* at 737–39.

113. *Id.* at 740.

Finally, in *Sovereign Inupiat for a Living Arctic (SILA) v. BLM*,¹¹⁴ the District Court for the District of Alaska found that the BLM's EIS for the Willow Project was inadequate because it should have either given a quantitative estimate of the downstream GHG emissions that would result from consuming oil abroad or explained more specifically why it could not have done so.¹¹⁵

The result of these decisions is that during the NEPA process, Leasing Agencies must gather information on and thoroughly consider the downstream climate effects of their oil and gas development decisions. If this analysis reveals reasonably foreseeable environmental impacts, then NEPA empowers the Leasing Agencies to select an action that would mitigate those impacts. Further, while NEPA is primarily a procedural statute and does not dictate a specific outcome, the other relevant sources of law discussed above do. Thus, if NEPA analyses reveal impacts that trigger mitigation obligations under the FLPMA, the MLA, the OCSLA, Leasing Agency regulations, or internal guidance documents, then the agencies must satisfy those obligations before their proposed action can move forward. In this manner, NEPA provides—in a roundabout way—additional authority for a net-zero requirement.

B. Agency Authority at the Planning Stage

Agency oil and gas development decisions begin at the planning stage, where the BLM and BOEM—the agencies responsible for lease planning—prepare their RMPs and five-year plans (Plans).¹¹⁶ Most notably, the Leasing Agencies use these Plans to identify which parts of each planning area will be open to leasing.¹¹⁷ In making these planning decisions, the BLM must “weigh long-term benefits to the public against short-term benefits.”¹¹⁸ Similarly, when determining the timing and location of available leases at the planning stage, the BOEM must, to the “maximum extent practicable . . . obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.”¹¹⁹ Once Plans are in place, statute empowers—and sometimes requires—the BLM and BOEM to update their Plans as new information becomes available.¹²⁰

114. 555 F. Supp. 3d 739 (D. Alaska 2021).

115. *Id.* at 766–67.

116. *See supra* Section I.C.

117. *Land Use Planning and NEPA Compliance for Oil and Gas Leasing*, U.S. DEP'T OF THE INTERIOR: BUREAU OF LAND MGMT., <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/leasing/land-use-planning> (last visited Oct. 2, 2024).

118. 43 U.S.C. § 1712(c)(7).

119. 43 U.S.C. § 1334(a)(3).

120. 43 U.S.C. § 1732(a); 43 U.S.C. § 1712(a) (BLM must “develop, maintain, and, when appropriate, revise land use plans.”); 43 U.S.C. § 1711(a) (BLM must update the inventory of lands available for leasing “so as to reflect changes in conditions.”); 43 U.S.C. § 1344(e) (“The Secretary shall review the leasing program approved under this section at least once each year. He may revise and reapprove such program, at any time, and such revision and reapproval, except in the case of a revision which is not significant, shall be in the same manner as originally developed.”).

Accordingly, the planning stage gives the executive branch several routes by which to institute net-zero requirements. First, it is important to note that the BLM and BOEM could greatly reduce, or perhaps even eliminate, oil and gas leasing under their jurisdiction at the planning stage. As leading public land scholar John Leshy has argued, because the BLM has broad authority to determine which lands are available for oil and gas leasing, it could theoretically end *all* future onshore oil and gas leasing by designating all minerals it manages “closed to leasing” for an indefinite period.¹²¹ In the offshore context, a recent DOI solicitor’s opinion found that the BOEM could conduct as few as two lease sales per five-year program period and still comply with the OCSLA’s directive to facilitate expeditious development.¹²² Given the Biden Administration’s leasing decisions discussed above, § 50265 of the IRA, and the political and economic realities of the United States’ dependence on fossil fuels,¹²³ this Article assumes that the executive branch will continue to designate certain lands and waters available for leasing. Still, it is a longstanding principle of statutory construction that the greater authority includes the lesser.¹²⁴ Thus, the fact that the BLM and BOEM have sufficient authority to eliminate or greatly reduce oil and gas leasing weighs in favor of their authority to impose the less restrictive administrative tool of net-zero requirements.

For new Plans, the BLM and BOEM could simply add a standard stipulation that is applicable to all future leases in the planning area. For example, the BLM’s standard oil and gas lease already has many stipulations, including that lessees “must conduct operations in a manner that minimizes adverse impacts to the land, air, and water, to cultural, biological, visual, and other resources, and to other land uses or users.”¹²⁵ Further, lessees “must take reasonable measures deemed necessary by lessor to accomplish the intent of this section.”¹²⁶ Similarly, the BOEM standard lease stipulates that BOEM may suspend or cancel leases pursuant to Section Five of the OCSLA, which provides for suspension if there is a threat of serious, irreparable, or immediate harm to the marine, coastal, or human

121. John D. Leshy, *Interior’s Authority to Curb Fossil Fuel Leasing*, 49 ENV’T L. REP. 10631, 10631–33 (2019) (arguing that the executive branch could also halt federal oil and gas leasing by either indefinitely pausing leasing to assess its effects on the climate, or by formally withdrawing all lands it manages from the operation of the MLA).

122. Memorandum from the U.S. Dep’t of the Interior Solicitor on Secretarial Discretion in Promulgating a National Outer Continental Shelf Oil and Gas Leasing Program to the Interior Secretary (Jan. 13, 2021), <https://www.doi.gov/sites/doi.gov/files/m-37062.pdf>.

123. See *supra* Section I.B.

124. See, e.g., *FERC v. Mississippi*, 456 U.S. 742, 765 (1982) (reasoning that because Congress could preemptively have regulated the entire field of natural gas regulation, it can take the less intrusive approach of allowing states to regulate on condition that they comply with various federal requirements). For a thorough examination of this reasoning, see Michael Herz, *Justice Byron White and the Argument That the Greater Includes the Lesser*, 1994 BYU L. REV. 227, 240–41 n.51 (1994).

125. U.S. DEP’T OF THE INTERIOR, BUREAU OF LAND MGMT., FORM 3100-011, LEASE FOR OIL AND GAS 3 § 6 (2023).

126. *Id.*

environment.¹²⁷ Thus, the BLM and BOEM could add a similar standard stipulation requiring net-zero operations.¹²⁸ The BLM and BOEM could do the same for existing Plans by amending them pursuant to new climate science information.¹²⁹

Finally, as noted above, Plans are major agency actions requiring NEPA analysis, including consideration of GHG emissions.¹³⁰ Thus, the BLM and BOEM can use the NEPA process at the planning stage to evaluate a Plan’s likely environmental impacts and select an alternative action that mitigates those impacts—including through a net-zero requirement applicable to all leases issued under the Plan. Further, NEPA’s provision for Programmatic EISs provides a means by which the BLM and BOEM could implement a net-zero requirement across *all* of their oil and gas leasing decisions, not just those under a specific Plan.¹³¹ Such a Programmatic EIS would allow the executive branch to evaluate the effects of oil and gas production on a national—or even international—scale and design a net-zero lease strategy that best mitigates those effects.¹³²

C. Agency Authority at the Leasing Stage

The leasing stage provides the BLM and BOEM with an opportunity to shape how they issue specific leases authorized under each Plan. As part of this process, the BLM and BOEM may add lease-specific stipulations

127. U.S. DEP’T OF THE INTERIOR, BUREAU OF OCEAN ENERGY MGMT., FORM BOEM-2005, OIL AND GAS LEASE OF SUBMERGED LANDS UNDER THE OUTER CONTINENTAL SHELF LANDS ACT 3 § 13 (2017); 43 U.S.C. § 1334(a)(1)(B). OCSLA section five also provides for lease cancellation:

at any time, if the Secretary determines, after a hearing, that—
 (i) continued activity pursuant to such lease or permit would probably cause serious harm or damage to life (including fish and other aquatic life), to property, to any mineral (in areas leased or not leased), to the national security or defense, or to the marine, coastal, or human environment; (ii) the threat of harm or damage will not disappear or decrease to an acceptable extent within a reasonable period of time; and (iii) the advantages of cancellation outweigh the advantages of continuing such lease or permit in force

43 U.S.C. § 1334(a)(2)(A).

128. See Pleune, Ruple, & Culver, *supra* note 47, at 324–25. Pleune, Ruple, and Culver note that the BLM has already advocated for similar requirements in the coal context. A BLM report posited that lessees could meet a net-zero requirement for coal production by purchasing offsets, among other methods. The report noted that “This approach has been used under the [ESA] and [CWA] as an efficient way to provide appropriate and measurable benefits to a resource that has been negatively affected through a proposed action.” U.S. DEP’T OF THE INTERIOR, BUREAU OF LAND MGMT., FEDERAL COAL PROGRAM: PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT—SCOPING REPORT 6.16–.17 (2017).

129. See Pleune, Ruple, & Culver, *supra* note 47, at 314–15 (discussing Agency authority to update Plans).

130. See *supra* Section II.A.3; 43 C.F.R. §§ 1601.0–6, 1610.5–5 (2017); see also *Louisiana v. Biden*, 622 F. Supp. 3d 267, 277 (W.D. La. 2022).

131. 40 C.F.R. § 1502.4(a), (d) (2024); Pleune, Ruple, & Culver, *supra* note 47, at 326–27; *NEPA Analysis: Programmatic Environmental Assessment*, NAT’L INST. OF JUST. (Sept. 9, 2019), <https://nij.ojp.gov/funding/nepa-analysis-programmatic-environmental-assessment> (“Programmatic NEPA is often utilized by federal agencies when the actions under a specific program(s) are routine actions done repeatedly and therefore are likely to have similar impacts that can be evaluated at a broad scale. Program-wide NEPA compliance allows for greater efficiency in preparing NEPA compliance documentation for individual projects by reducing repetitive analysis.”).

132. Pleune, Ruple, & Culver, *supra* note 47, at 326–27.

beyond those required by the Plan.¹³³ As Pleune, Ruple, and Culver note, the BLM and BOEM have broad authority to add stipulations as terms of the contract/lease prior to sale because each lease is a contract.¹³⁴ Thus, at the leasing stage, the BLM and BOEM can use their discretion to determine which impacts are acceptable, which are unacceptable, and which can be mitigated via stipulations.¹³⁵ Agency imposition of such stipulations is well established; a 2008 DOI study found 3,125 stipulations in place across 128 land use plans.¹³⁶

When the BLM or BOEM issues a lease for oil and gas development, it forms a contract between the agency and the lessee.¹³⁷ But these contracts do not grant lessees “an immediate or absolute right to explore for, develop, or produce oil or gas . . . those activities require separate, subsequent federal authorizations.”¹³⁸ In practice, federal oil and gas leases amount “primarily to an opportunity to try to obtain exploration and development rights in accordance with the procedures and under the standards specified in the cross-referenced statutes and regulations.”¹³⁹ Lessees have the opportunity to perfect their exploration and drilling rights at the final drilling stage.

The BLM and BOEM could also impose a net-zero requirement at the leasing stage via regulation. For example, in the onshore context, as noted above, the FLPMA empowers the BLM to, “by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands.”¹⁴⁰ The BLM has issued voluminous onshore oil and gas regulations under the MLA and related authorities as well.¹⁴¹ Similarly, offshore leases issued under the OCSLA are subject to BOEM and BSEE regulation, including through “suspension or prohibition of any operation on the Shelf” as necessary to meet OCSLA’s directives.¹⁴² The OCSLA also allows the BOEM and the BSEE to issue regulations to ensure that

133. For onshore leases, see 43 C.F.R. § 3101.13(b) (2024) (“The authorized officer may require stipulations as conditions of lease issuance. Stipulations will become part of the lease and will supersede inconsistent provisions of the standard lease form.”); Pleune, Ruple, & Culver, *supra* note 47, at 327. For offshore leases, see 30 C.F.R. § 556.304(a) (2024) (“The Director will, in consultation with appropriate Federal agencies, develop measures, including lease stipulations and conditions, to mitigate adverse impacts on the environment, which will be contained, or referenced, in the proposed notice of sale.”).

134. Pleune, Ruple, & Culver, *supra* note 47, at 328.

135. For example, in *WEG v. Zinke*, the court noted that the “BLM could decline to sell the oil and gas leases at issue here if the environmental impact of those leases—including use of the oil and gas produced—would not be in the public’s long-term interest.” 368 F. Supp. 3d 41, 73 (D.D.C. 2019).

136. U.S. DEPT’S OF THE INTERIOR, AGRIC., & ENERGY, INVENTORY OF ONSHORE FEDERAL OIL AND NATURAL GAS RESOURCES AND RESTRICTIONS TO THEIR DEVELOPMENT 109 (2008). For example, some leases stipulate that drilling activities may only occur at certain times of the year.

137. *Mobil Oil Expl. & Producing Se., Inc. v. United States*, 530 U.S. 604, 620 (2000). Thus, courts interpret federal oil and gas leases under contract principles. *Lynch v. United States*, 292 U.S. 571, 579 (1934).

138. *Sec’y of Interior v. California*, 464 U.S. 312, 317 (1984).

139. *Mobil Oil*, 530 U.S. at 620 (emphasis omitted).

140. 43 U.S.C. § 1732(b).

141. See 43 C.F.R. § 3160.0–1 (2024).

142. *Louisiana v. Biden*, 622 F. Supp. 3d 267, 277 (W.D. La. 2022); 43 U.S.C. § 1334(a).

offshore leasing complies with the Clean Air Act, to the extent that the permitted development significantly affects the air quality of any state.¹⁴³

The BLM and BOEM also must prepare EISs at either the leasing or the drilling stage—or both. Under the legal standard clarified in *Conner v. Burford*,¹⁴⁴ agencies must prepare an EIS before any “irreversible and ir-retrievable commitment of resources.”¹⁴⁵ For onshore oil and gas leases, *Conner* does not require an EIS if a lease prohibits all surface-disturbing activities prior to the drilling stage.¹⁴⁶ Correspondingly, *Conner* does require an EIS if the lease allows any surface-disturbing activities prior to the drilling stage.¹⁴⁷ As noted above, all offshore lease sales are subject to NEPA analysis.¹⁴⁸ In any event, the BLM and BOEM often conduct NEPA analyses at the leasing stage¹⁴⁹—whether or not it is technically required.

Whether the BLM and BOEM conduct NEPA analysis at the leasing or the drilling stage, NEPA requires them to consider the reasonably foreseeable impacts of each oil and gas lease, including climate impacts. For example, in *SILA*, the court struck down the Willow Project’s EIS for failure to appropriately quantify its probable downstream GHG emissions.¹⁵⁰ As a result of the NEPA standard clarified in *SILA*, *High Country Conservation Advocates*, and the other cases discussed above, the BLM and BOEM will have ample data on each project’s likely climate impacts when making their leasing decisions.¹⁵¹ As the *CBD* court noted, if the BLM or BOEM “concludes that [GHG] emissions will be significant, it may well approve another alternative included in the EIS or deny the lease altogether.”¹⁵² Given that the BLM and BOEM have the option to deny leases altogether on the basis of their NEPA findings, it makes sense that they might choose to mitigate a project’s emissions by imposing a net-zero stipulation instead. Presumably, potential lessees would also rather accept a net-zero requirement than have their lease denied.

D. Agency Authority at the Drilling Stage

The Leasing Agencies (the BLM, BOEM, and BSEE) have additional authority to impose net-zero requirements at the drilling stage when granting or denying permits for lessees to begin development or to modify their

143. 43 U.S.C. § 1334(a)(8).

144. 848 F.2d 1441 (9th Cir. 1988).

145. *Id.* at 1446.

146. *Id.* at 1451. While the BLM’s surface management regulations do not specifically define “surface disturb[ing],” they seem to indicate that use beyond “casual use”—use that typically results “in no or negligible disturbance of the public lands or resources”—would be sufficiently “surface disturb[ing]” to trigger the *Conner* EIS requirement. 43 C.F.R. § 3809.5 (2024).

147. *Conner*, 848 F.2d at 1448.

148. *See supra* Section I.C.2; 43 C.F.R. § 3162.3–1(c) (2024).

149. *See, e.g., Leasing Reform*, U.S. DEP’T OF THE INTERIOR: BUREAU OF LAND MGMT., <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/leasing> (last visited Sept. 20, 2024).

150. *Sovereign Inupiat for a Living Arctic v. BLM*, 555 F. Supp. 3d 739, 804–05 (D. Alaska 2021).

151. *See supra* Section II.A.3.

152. *Ctr. for Biological Diversity v. Bernhardt (CBD)*, 982 F.3d 723, 740 (9th Cir. 2020).

operations. This authority flows from the four corners of already-issued leases. For example, the standard BLM lease form states: “Rights granted are subject to applicable laws, the terms, conditions, and attached stipulations of this lease, the Secretary of the Interior’s regulations and formal orders in effect as of lease issuance, and to regulations hereafter promulgated when not inconsistent with lease rights granted or specific provisions of this lease.”¹⁵³ In other words, oil and gas leases are subject not only to the laws, regulations, and orders in place at the time they were issued but also to subsequent regulations promulgated under those authorities (to the extent that they are not inconsistent with the lease).¹⁵⁴ These leases “are interpreted just like any other contract.”¹⁵⁵

Accordingly, a variety of court decisions support the proposition that the Leasing Agencies can, in many cases, modify existing oil and gas leases by attaching new stipulations when granting APDs or other plan approvals at the drilling stage.¹⁵⁶ For example, in *Century Exploration New Orleans, LLC v. United States*,¹⁵⁷ offshore oil and gas lessees challenged the DOI’s imposition of new safety requirements following the Deepwater Horizon disaster.¹⁵⁸ In *Century Exploration*, the U.S. Federal Court of Claims explained that while the lessees were “entitled to a stable statutory regime” under the lease, “they assumed the risk of future regulatory changes within the context of that statutory regime.”¹⁵⁹ The court noted that the new safety measures were amendments to the OCSLA’s implementing regulations and were themselves promulgated pursuant to the OCSLA.¹⁶⁰ Thus, the *Century Exploration* court found that even though the new regulations increased the lessees’ costs, they did not breach the lease.¹⁶¹

As Pleune, Ruple, and Culver point out, the Leasing Agencies also have access to a variety of tools beyond the four corners of the lease by which to add a potential net-zero requirement at the drilling stage. First, the Leasing Agencies can use the NEPA process to drive development of

153. U.S. DEP’T OF THE INTERIOR, *supra* note 125, at 1. The BOEM standard lease has similar requirements. See U.S. DEP’T OF THE INTERIOR, *supra* note 127, at 1.

154. See also *Amber Res. Co. v. United States*, 538 F.3d 1358, 1368 (Fed. Cir. 2008) (“[W]e treat the lease agreements as incorporating by reference any statutes or regulations that were in effect at the time of the leases’ execution and any regulations promulgated pursuant to those statutes.”).

155. *Chambers v. Chesapeake Appalachia, L.L.C.*, 359 F. Supp. 3d 268, 275 (M.D. Pa. 2019).

156. See *Barlow & Haun, Inc. v. United States*, 805 F.3d 1049, 1054–57 (Fed. Cir. 2015) (upholding the BLM’s imposition of new safety measures on a trona mining lease because they were issued pursuant to existing regulations, left existing contract rights intact, and left the BLM free to approve the APD at its discretion); *San Juan Citizens All. v. BLM*, 326 F. Supp. 3d 1227, 1244–46 (D.N.M. 2018) (finding that the BLM could defer analyzing GHG mitigation measures until the drilling stage).

157. 110 Fed. Cl. 148, 153 (Fed. Cl. 2013), *aff’d*, 745 F.3d 1168 (Fed. Cir. 2014).

158. *Id.* at 153, 158. The Deepwater Horizon disaster involved the explosion of the BP oil rig *Deepwater Horizon*, which resulted in the deaths of eleven workers “and the largest spill of oil in the history of marine oil drilling operations.” *Deepwater Horizon—BP Gulf of Mexico Oil Spill*, EPA, <https://www.epa.gov/enforcement/deepwater-horizon-bp-gulf-mexico-oil-spill> (July 24, 2024).

159. *Century Expl.*, 110 Fed. Cl. at 165–66.

160. *Id.* at 166.

161. *Id.* at 168–72.

project alternatives—especially where the Leasing Agency has deferred a stringent analysis of GHG impacts to the drilling stage.¹⁶² Even when the Leasing Agencies would normally categorically exclude¹⁶³ approval of an APD or other development plan, the Leasing Agencies must conduct more detailed NEPA analysis for actions that “[h]ave a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.”¹⁶⁴ Thus, by conducting NEPA analysis at the drilling stage, the Leasing Agencies could consider the likely climate impacts of issuing the permits and select an alternative that includes a net-zero requirement to help mitigate those impacts.

Next, as the lessor, Leasing Agencies can require that drilling permit applicants include mitigation measures in their drilling plans as a “Condition of Approval.”¹⁶⁵ For example, in *Yates Petroleum Corp.*,¹⁶⁶ the Interior Board of Land Appeals upheld the BLM’s imposition of more stringent mitigation measures at the drilling stage compared to the leasing stage as a condition of an APD approval.¹⁶⁷ The Board noted that these leases are subject to reasonable measures the BLM requires to minimize adverse impacts—even impacts that were not addressed in the original lease stipulations.¹⁶⁸ Similarly, the BSEE can work with the BOEM to review existing exploration, development, and drilling operations and then add new conditions on drilling permit approval as needed to protect the safety of the marine environment.¹⁶⁹ As a result, the Leasing Agencies could review existing oil and gas operations, determine that they are inappropriately harming the environment, and impose net-zero requirements as a condition of approval for future exploration, development, or drilling.

Lastly, Pleune, Ruple, and Culver note that the Leasing Agencies could implement net-zero “Best Management Practices.”¹⁷⁰ For example, the Colorado State BLM Office has instituted a best management practice of “request[ing]” that APD applicants “submit a comprehensive inventory of anticipated direct and indirect emissions . . . including fugitive emissions and greenhouse gas emissions.”¹⁷¹ If these emissions might be significant, the Colorado BLM directs applicants to submit a detailed

162. Pleune, Ruple, & Culver, *supra* note 47, at 331–32.

163. *Categorical Exclusions*, NEPA, <https://ceq.doe.gov/nepa-practice/categorical-exclusions.html> (last visited Sept. 20, 2024) (“A categorical exclusion . . . is a class of actions that a Federal agency has determined . . . do not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is normally required. The use of categorical exclusions can reduce paperwork and save time and resources.”).

164. 43 C.F.R. § 46.215(f) (2024).

165. Pleune, Ruple, & Culver, *supra* note 47, at 329.

166. *Yates Petroleum Corp.*, 176 Interior Dec. 144, 160–61 (IBLA 2008).

167. *Id.*

168. *Id.*

169. NEPA MOA, *supra* note 65, at 4–6.

170. Pleune, Ruple, & Culver, *supra* note 47, at 334.

171. *Id.* (emphasis omitted); COLO. BUREAU OF LAND MGMT., COMPREHENSIVE AIR RESOURCE PROTECTION PROTOCOL 6 (2013).

description of measures they will commit to in order to reduce those emissions.¹⁷² Thus, Leasing Agency offices could make net-zero emissions a “best practice” for oil and gas operations at the drilling stage and could consider adherence to these best practices when considering permit approval. While these best practices would not be true net-zero requirements, they could still result in significant net emissions reductions by incentivizing emissions reductions or offsets.

In sum, the Leasing Agencies have ample authority to impose a net-zero requirement at the planning, leasing, and drilling stages of oil and gas development on federal lands and waters. Thus, Leasing Agency net-zero requirements would likely withstand an APA challenge.¹⁷³

III. FEDERAL NET-ZERO REQUIREMENTS COULD LIKELY WITHSTAND A MQD CHALLENGE

For the reasons explained below, a net-zero requirement for federal oil and gas leases is unlikely to be struck down on the basis of the MQD or similar legal grounds. Under *West Virginia's* recently reinvigorated MQD, agencies must point to “clear congressional authorization” to justify “extraordinary cases” of regulatory authority.¹⁷⁴ This Part begins with an analysis of the principles explained in *West Virginia*,¹⁷⁵ then applies those principles to analyze potential challenges of Leasing Agency-imposed net-zero requirements.

A. *The Contemporary MQD*

In *West Virginia*, a coalition of states and other stakeholders challenged the Obama Administration’s Clean Power Plan as beyond the statutory authority vested in the Environmental Protection Agency (EPA). Specifically, the plaintiffs challenged the EPA’s regulation of power plants to force “generation shifting” away from coal-fired power plants and toward lower-emission power generation technologies.¹⁷⁶ The EPA had implemented the challenged portion of the Clean Power Plan pursuant to § 111(d) of the Clean Air Act, which directed the EPA to set power plant emission caps that reflect the “best system of emission reduction.”¹⁷⁷ The Court drew principles from a variety of precedents to strike down EPA’s generation-shifting regulation, ultimately holding that a “decision

172. See COLO. BUREAU OF LAND MGMT., COMPREHENSIVE AIR RESOURCE PROTECTION PROTOCOL 6 (2013).

173. See *infra* Section IV.A for a discussion of how the authorities described above map onto the legal standards governing APA claims.

174. *West Virginia v. EPA*, 597 U.S. 697, 721, 723 (2022).

175. Justice Gorsuch’s concurrence in *West Virginia* distills somewhat different MQD principles than are proposed by this Article. In Justice Gorsuch’s view, the MQD is triggered when an agency (1) “claims the power to resolve a matter of great ‘political significance;” (2) “seeks to regulate ‘a significant portion of the American economy’ . . . or require ‘billions of dollars in spending’ by private persons or entities;” or (3) “seeks to ‘intrud[e] into an area that is the particular domain of state law.”” *Id.* at 743–44 (Gorsuch, J., concurring).

176. *Id.* at 719–20 (majority opinion).

177. *Id.* at 709.

of such magnitude and consequence rests with Congress itself, or an agency acting pursuant to a clear delegation from that representative body.”¹⁷⁸

The MQD applies to issues of great national political or economic importance. In *West Virginia*, the Court pointed to *Utility Air Regulatory Group v. EPA*¹⁷⁹ as an example of this principle.¹⁸⁰ In *Utility Air*, the Court struck down the EPA’s attempt to regulate GHGs under its authority over “air pollutants,” calling the regulation an “unheralded” claim of regulatory power over a significant portion of the American economy.¹⁸¹ Similarly, in *FDA v. Brown & Williamson Tobacco Corp.*¹⁸²—the standard-setting case regarding the Food and Drug Administration’s (FDA) asserted authority to regulate and even ban tobacco products—the Court noted that, “we are confident that Congress could not have intended to delegate a decision of such economic and political significance to an agency in so cryptic a fashion.”¹⁸³ In *West Virginia*, the Court similarly found it “highly unlikely that Congress would leave to agency discretion the decision of how much coal-based generation there should be over the coming decades.”¹⁸⁴

West Virginia also indicates that the MQD applies when an agency is regulating something unprecedentedly that is seemingly dissociated from its usual authority. For example, the Court referenced *Alabama Ass’n of Realtors v. Department of Health and Human Services*,¹⁸⁵ in which it had struck down an attempt by the Center for Disease Control and Prevention to institute a nationwide eviction moratorium in response to the COVID-19 pandemic.¹⁸⁶ The Court held that the agency’s statutory discretion to adopt measures necessary to prevent the spread of disease was a “wafer-thin reed” upon which to rest this “unprecedented” exertion of regulatory authority.¹⁸⁷ In *West Virginia*, the Court applied this principle by noting that while in the past the EPA had required measures that would cause power plants to operate more cleanly, it was now attempting to regulate emissions by “forcing a shift throughout the power grid from one type of energy source to another.”¹⁸⁸

178. *Id.* at 734.

179. *Id.* at 722.

180. *Id.* at 716.

181. *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302, 320, 323–24 (2014).

182. 529 U.S. 120 (2000).

183. *Id.* at 160.

184. *West Virginia*, 597 U.S. at 729 (internal quotation marks omitted).

185. 594 U.S. 758 (2021).

186. *Id.* at 765–66; *West Virginia*, 597 U.S. at 721–22.

187. *West Virginia*, 597 U.S. at 721; *Ala. Ass’n of Realtors*, 594 U.S. at 763, 765. Similarly, in *West Virginia*, the Court pointed to *National Federation of Independent Business*, where it had previously struck down the Occupational Safety and Health Administration’s COVID-19 vaccine mandate as too far outside its authority to regulate occupational hazards. *West Virginia*, 597 U.S. at 722; *Nat’l Fed’n of Indep. Bus. v. Dep’t of Lab., Occupational Safety & Health Admin.*, 595 U.S. 109, 117 (2022).

188. *West Virginia*, 597 U.S. at 726–28. The Court noted that there was “no control a coal plant operator can deploy to attain the emissions limits established by the Clean Power Plan.” *Id.* at 726.

Finally, when determining whether Congress intended to grant an agency power to regulate an important issue, the Court considers whether Congress knew about the issue and chose to act on it or not. If Congress knew about and failed to act on a given issue, then the Court is less likely to uphold an agency's exercise of authority related to that issue. The *West Virginia* Court cited a variety of cases for this proposition,¹⁸⁹ including *Alabama Realtors* (Congress failed to extend eviction moratorium),¹⁹⁰ *Utility Air* (Congress declined to pass significant GHG legislation),¹⁹¹ and *Brown & Williamson* (Congress "repeatedly acted to preclude any agency from exercising significant policymaking authority" over tobacco).¹⁹² Similarly, in *West Virginia*, the Court noted that the issue of climate change had "been the subject of an earnest and profound debate across the country," yet "long after the dangers posed by greenhouse gas emissions had become well known," Congress had "considered and rejected" action on the issue multiple times.¹⁹³

B. Net-Zero Requirements and the MQD

An application of the principles discussed above to the Leasing Agencies' authority for net-zero requirements shows that the courts are unlikely to strike down these requirements under an MQD challenge. As a starting point for this analysis, consider how net-zero requirements are different from other more drastic measures that are potentially available to the Leasing Agencies, like pausing leasing (as was struck down in Louisiana),¹⁹⁴ ceasing all new lease sales or approvals of drilling permits (as the Biden Administration promised then backed off from),¹⁹⁵ or canceling existing leases (as commentators like Leshy have advocated for).¹⁹⁶ Thus, instead of stopping leasing, as each of these examples would, net-zero requirements are a tool the Leasing Agencies could use to allow necessary oil and gas leasing to continue.

As a result, when analyzing the first *West Virginia* factor, Leasing Agency imposition of net-zero requirements for federal oil and gas leases seems significantly less important than the examples discussed in *West Virginia*, both economically and politically. First, while a net-zero requirement would add to lessees' production costs, it is unlikely to have the type of effect on the national economy that the EPA's regulation of GHGs would have had in *Utility Air*. In that case, the proposed regulations would have allowed the EPA to regulate "millions of small sources" that it had not regulated previously, such as hotels and office buildings.¹⁹⁷ Here,

189. *Id.* at 724–25.

190. *Ala. Ass'n of Realtors*, 594 U.S. at 760.

191. *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302, 324 (2014).

192. *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 160 (2000).

193. *West Virginia*, 597 U.S. at 731–32 (internal quotation marks omitted).

194. *See Louisiana v. Biden*, 622 F. Supp. 3d 267, 293 (W.D. La. 2022).

195. *See supra* Section I.B.

196. *See Leshy, supra* note 121, at 10631–32.

197. *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302, 310, 328 (2014).

net-zero requirements would only apply to energy developers, most of whom are already regulated by the Leasing Agencies and who would be entering knowingly into Leasing Agency leases including the net-zero requirements. Similarly, allowing the Leasing Agencies to impose net-zero requirements seems significantly less impactful to the nation than allowing the FDA to ban tobacco products would have been, as contemplated in *Brown & Williamson*. Whereas banning tobacco products would have directly affected millions of Americans, adding a net-zero requirement to oil and gas leases would only add expense to oil producers operating on federal lands and waters. Finally, while the EPA regulations at issue in *West Virginia* sought to force generation shifting in the energy sector, net-zero requirements would essentially do the opposite by allowing existing generation technology—oil and gas production—to continue while also limiting its net emissions.

Moving to the second *West Virginia* factor, while net-zero requirements would be new, the Leasing Agencies do have a history of asserting substantially similar authority. Unlike in *Alabama Realtors*—where the CDC attempted to impose a national eviction moratorium—or in *West Virginia*—where the EPA determined that generation shifting was a system of emission reduction—here, the Leasing Agencies would merely be adding another stipulation to leases that already have significant contractual limitations. Moreover, cases like *High Country Conservation Advocates*, *FERC*, *Zinke*, *CBD*, and *SILA* make clear that the Leasing Agencies have both a duty under NEPA to consider the downstream impacts of their leasing decisions and authority to choose action alternatives that mitigate those impacts.¹⁹⁸ Further, as discussed above, the Leasing Agencies have additional statutory authority to mitigate potential impacts of proposed oil and gas projects at the planning, leasing, and drilling stages.¹⁹⁹ Indeed, the Leasing Agencies have a history of doing so through a vast array of regulations, lease stipulations, and other similar measures.²⁰⁰ Even if the Leasing Agencies would be adding requirements to existing leases, they have exerted similar authority in the past—for example, by adding safety requirements after the Deepwater Horizon disaster in *Century Exploration* or by adding more stringent environmental mitigation measures in *Yates Petroleum*.

However, the third *West Virginia* principle—whether Congress has acted on the issue—could go either way. On one hand, because Congress is aware of the harmful impacts of GHG emissions and has chosen not to act (certainly not by adding a net-zero requirement to federal oil and gas leases), this principle seems to point toward courts invalidating such requirements on MQD grounds. On the other hand, the issue of net-zero requirements is far more niche than the issues the Court considered in

198. See *supra* Section II.A.3.

199. See *supra* Part II.

200. See *supra* Part II.

Alabama Realtors, Utility Air, or Brown & Williamson. Because the issue of net-zero requirements is novel and Congress easily could have overlooked it, this principle still seems unlikely to tip the scales toward a court striking down a net-zero requirement. Accordingly, because the second and third *West Virginia* factors point in favor of upholding net-zero requirements, and the third factor is a toss-up, these requirements seem likely to withstand a legal challenge on MQD grounds.

IV. SUGGESTIONS FOR EFFECTIVE NET-ZERO REQUIREMENTS

By implementing net-zero requirements under the appropriate authorities and following industry best practices for net-zero commitments and emissions offsets, the Leasing Agencies could greatly increase the chances that the requirements would withstand both APA and MQD challenges and prove effective at limiting net carbon emissions.

A. Withstanding an APA Challenge

To withstand a challenge under APA § 706, an agency must show that its actions were not arbitrary and capricious and that the challenged actions were within the agency's delegated statutory authority.²⁰¹ Under the modern "hard look" standard, courts strike down agency actions as arbitrary and capricious when the agency (1) entirely failed to consider an important aspect of the problem, (2) relied on factors Congress did not intend it to consider, or (3) offered an explanation for its decision that runs counter to the evidence or is so implausible that it could not be ascribed to a different view or to agency expertise.²⁰² Courts strike down agency actions as being in excess of their statutory authority when they find that the agency's interpretation of the statute is inappropriate. Under the broadly applicable *Skidmore* balancing test, agency interpretations receive more deference based on (1) the thoroughness of their consideration, (2) the validity of their reasoning, (3) the interpretation's consistency with earlier and later pronouncements, and (4) other factors that give it "power to persuade."²⁰³

To begin, the Leasing Agencies could best withstand an arbitrary and capricious challenge by ensuring that their decision to impose a net-zero requirement is well supported by the administrative record. Because the Leasing Agencies must gather data on a broad range of reasonably foreseeable climate impacts during the NEPA process, this should not prove difficult.²⁰⁴ Indeed, given the holdings in cases like *High Country Conservation Advocates* (the BLM must consider the social cost of carbon in its

201. 5 U.S.C. § 706(2)(A), (C).

202. *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 43–44 (1983).

203. *Christensen v. Harris Cnty.*, 529 U.S. 576, 587 (2000). *See generally* *Skidmore v. Swift & Co.*, 323 U.S. 134 (1944). This Article omits discussion of the *Chevron* doctrine due to its uncertain future at the time of this writing and its general inapplicability to policy statements, interpretive rules, etc. Further, because the *Skidmore* standard is less deferential than the *Chevron* standard, if an agency action passes the *Skidmore* test, then it will almost certainly withstand *Chevron* analysis as well.

204. *See supra* Section II.A.3.

leasing decisions) and *Zinke* (the BLM must quantify the reasonably foreseeable downstream emissions of the project in aggregate),²⁰⁵ it seems unlikely that a Leasing Agency decision to mitigate GHG impacts via a net-zero requirement would be viewed as arbitrary and capricious. After all, if these cases require that Leasing Agencies thoroughly investigate the emissions implications of newly proposed oil and gas projects, then the record will almost necessarily contain sufficient evidence to support an Agency decision to impose a net-zero requirement to mitigate those emissions.

Beginning with the first hard look factor, the Leasing Agencies would have ample information in the record to support its decision to use a net-zero requirement to mitigate the climate harm resulting from oil and gas leases. Thus, a court would be highly unlikely to find that it had entirely failed to consider an important aspect of the problem. Regarding the second factor—whether the Leasing Agency relied on factors Congress did not intend it to consider—different courts would likely come to different conclusions. Accordingly, challengers to Leasing Agency net-zero requirements would most likely focus their efforts on arguing that climate harm was not among the factors that Congress intended the Leasing Agencies to consider when it enacted the MLA or the OCSLA—and some courts might agree. But other courts would very likely conclude that both statutes direct the Leasing Agencies to consider harm to the environment, including climate harms, when making their leasing decisions, as explained above.²⁰⁶ Finally, as long as the Leasing Agency explains its decision through a rationale similar to the rationale presented in this Article—that imposing net-zero requirements allows the Leasing Agency to continue oil and gas leasing while also limiting climate harm—it is difficult to see how a court would find that the Leasing Agency’s decision ran counter to the evidence. Thus, with at least two of the three hard look factors weighing in favor of the proposed Leasing Agency action, a properly supported net-zero requirement would likely stand up to an arbitrary and capricious challenge.

Moving to a challenge based on action in excess of statutory authority, the Leasing Agencies could best defeat this challenge by carefully choosing the authorities under which they impose their net-zero requirements. For example, assume that the BLM sought to impose a requirement on a large, new onshore project at the leasing stage via a lease-specific stipulation. The BLM could justify this action by layering several applicable authorities. First, the BLM could point to the FLPMA’s multiple use and unnecessary and undue degradation standards to argue that the requirement allows continued oil and gas production, while also preventing undue degradation (by limiting climate harm).²⁰⁷ Next, it could conduct a

205. *Supra* Section II.A.3; *see also supra* notes 109–10.

206. *See supra* Part II.

207. *See supra* Section II.A.1.

thorough NEPA analysis, including consideration of downstream climate impacts. The BLM could then point to its broad discretion under NEPA to select an alternative that mitigates those climate impacts. The BLM could also call upon its discretion as a lessor under the MLA to choose lease terms that are in the public interest. Finally, it could cite regulations issued under the MLA requiring that “all operations be conducted in a manner which protects [the mineral resources,] other natural resources[,] and the environmental quality.”²⁰⁸

Similarly, imagine that the BOEM sought to implement net-zero requirements on all its leases at the planning stage. It could support this choice based on a variety of OCSLA-based grounds. First, the OCSLA empowers the BOEM to “at any time prescribe and amend such rules and regulations as [necessary] to provide for the prevention of waste and conservation of the natural resources” of the outer continental shelf.²⁰⁹ Thus, the BOEM could use this authority to issue regulations requiring it to impose net-zero requirements in its five-year programs. It could support these regulations by arguing that GHG emissions from fossil fuel production harm the coastal environment by contributing to ocean warming, acidification, and major weather events,²¹⁰ and that the net-zero regulations are necessary to conserve the environment of the outer continental shelf. Next, the BOEM could impose requirements at the planning stage by applying its authority to “obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.”²¹¹ In doing so, the BOEM could argue that its net-zero requirements provide exactly the type of balance contemplated by the OCSLA because the requirements would allow development of oil and gas resources while also mitigating climate harm to the coastal zone. Finally, under the OCSLA, the BOEM must make offshore oil and gas resources available for expeditious development “in a manner which is consistent with the maintenance of competition *and other national needs*.”²¹² Thus, BOEM could find that there is a compelling national need to limit GHG emissions and that adding a net-zero requirement to its five-year programs is an appropriate way to meet this need.²¹³

For similar reasons as under the hard look standard, it seems unlikely that a court would strike down a Leasing Agency net-zero requirement as failing the *Skidmore* balancing test. By conducting a thorough NEPA analysis, relying on the authorities explained above, and using the reasoning

208. 43 C.F.R. § 3161.2 (2024).

209. 43 U.S.C. § 1334(a).

210. See, e.g., *Climate Change Impacts on the Ocean and Marine Resources*, EPA, <https://www.epa.gov/climateimpacts/climate-change-impacts-ocean-and-marine-resources> (May 15, 2024).

211. 43 U.S.C. § 1344(a)(3).

212. 43 U.S.C. § 1332(3) (emphasis added).

213. It could base this determination on executive orders, the applicable five-year plan’s NEPA record, or other sources. See Exec. Order No. 14,008, *supra* note 37; Offshore Report, *supra* note 69, at 6–7.

that net-zero requirements allow continued oil and gas leasing while also mitigating its climate impact, it seems likely that a Leasing Agency would have the necessary “power to persuade” under the *Skidmore* standard.

B. Withstanding an MQD Challenge

As explained above, net-zero requirements appear well-positioned to withstand an MQD challenge. These requirements are relatively minor politically and economically, and the Leasing Agencies have used their authority to regulate similarly in the past. Still, the Leasing Agencies could further ensure that courts uphold their net-zero requirements by limiting the scope of the policies they use to implement such requirements.

For example, an administration could choose to implement net-zero requirements only on significant new oil and gas projects, like Liberty and Willow. Doing so would move these requirements even further away from being sufficiently important to the national economy to support a successful MQD challenge. Similarly, the Leasing Agencies could choose to impose net-zero requirements only on the existing leases that are predicted to produce the most emissions in future years. This type of incremental strategy would also serve to build a history of such requirements, making subsequent challenges under the APA or MQD less likely to succeed.

The Leasing Agencies could also structure their net-zero requirements to be as much like previous oil and gas lease requirements as possible, especially by clearly linking them to existing authorities. Recall that for new BLM leases, the “authorized officer may require stipulations as conditions of lease issuance” and these stipulations “shall become part of the lease and shall supersede inconsistent provisions of the standard lease form.”²¹⁴ The BOEM has similar authority under the OCSLA.²¹⁵ Thus, the Leasing Agencies could base their net-zero requirements on these authorities and could mirror existing language in their standard lease forms as closely as possible.²¹⁶ For example, a net-zero requirement stipulation for a new lease could look like the following:

Achieving Net Zero Emissions. As a condition of this Lease, Lessee must minimize the adverse environmental impacts of all operations conducted under the lease by ensuring that such operations produce zero net greenhouse gas emissions. To accomplish the intent of this Section, Lessee must quantify and report its GHG emissions as required by Lessor and take reasonable measures deemed necessary by Lessor to offset such emissions.²¹⁷

214. 43 C.F.R. § 3101.1–3 (2024); *see supra* Section II.C; *see also* 40 C.F.R. § 1502.14 (2024).

215. 30 C.F.R. § 556.304 (2024); *see supra* Section II.C; *see also* 40 C.F.R. § 1502.14 (2024).

216. *See supra* Section II.B and note 127.

217. This is proposed language written by the author, based on the BLM’s standard lease form. As noted above in *supra* Section II.B and note 125, the BLM’s standard oil and gas lease stipulates that lessees “must conduct operations in a manner that minimizes adverse impacts to the land, air, and

For existing leases, the Leasing Agencies could require that applicants for APD or other approvals at the drilling stage include similar stipulations in their plans as conditions of approval. Thus, mirroring standard lease language would help ensure that a court would view a new net-zero requirement as just another of the many stipulations already placed on oil and gas leases.

In sum, the less sweeping the requirements and the more they look like existing stipulations, the less likely they are susceptible to a MQD challenge. By focusing requirements on the most impactful applications—existing and future high-production leases—an administration could achieve many of its GHG emissions reduction goals without shouldering the additional risk that a sweeping national policy would entail.

C. Best Practices for the Content of Net-Zero Requirements

Finally, while a full review of net-zero best practices is beyond the scope of this Article, it is important to note some of the ways that the requirements discussed here could be made most effective and to explain why these requirements would be more than mere greenwashing. Most importantly, a net-zero requirement would improve upon almost all corporate and national net-zero commitments by virtue of being a *requirement* rather than a largely unenforceable commitment. As such, the Leasing Agencies could provide consequences—up to and including termination of the lease—for a lessee’s failure to comply with the requirement. The best way to do this would be through provisions within the lease itself. Lessees would clearly be bound by the requirement because courts interpret federal leases under usual contract principles.

Next, any net-zero requirement should specify which emissions lessees must be accounted for and how they should calculate those emissions. The best practice would be to make oil and gas net-zero requirements apply to a project’s Scope 3 emissions, even though requiring Scope 2 emissions could prove more practicable.²¹⁸ Lastly, the Leasing Agencies should compile a list of acceptable methods for offsetting emissions and include that list as an attachment to each lease, plan approval, or APD that includes a net-zero requirement. This list should include scientifically vetted offset methods that lessees can conduct themselves or can hire out to approved third-party offset providers.

CONCLUSION

Net-zero requirements for federal oil and gas leases provide a way for a presidential administration to allow necessary oil and gas development while also limiting GHG emissions, thereby keeping the United

water, to cultural, biological, visual, and other resources, and to other land uses or users,” and that they “must take reasonable measures deemed necessary by lessor to accomplish the intent of this section.” U.S. DEP’T OF THE INTERIOR, *supra* note 125, at 3 § 6.

218. See *supra* Section I.A.

States on track to meet its broader net-zero goals. Leases featuring net-zero requirements should require lessees to implement industry best-practices for both net-zero commitments and carbon offsets, which would help ensure that this policy delivers meaningful climate impacts. The Leasing Agencies have sufficient existing authority to impose these types of requirements on new leases at the planning and leasing stages, and on existing leases at the drilling stage. If the Leasing Agencies follow the suggestions described in this Article, then their net-zero requirements will likely withstand legal challenges under both the APA and the MQD.