

NEXT STEPS TO REFORM THE REGULATIONS GOVERNING OFFSHORE OIL AND GAS PLANNING AND LEASING

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ABSTRACT

The Department of the Interior manages offshore oil and gas activities in federal waters. While the agency has proposed and/or enacted important improvements to the rules that govern some of those activities, it has not modernized the regulations that govern offshore oil and gas planning, lease sales, or the review and permitting of exploratory drilling. These phases of the process are overseen by the Bureau of Ocean Energy Management (BOEM), and, as was shown in our earlier publication on this topic, are ineffective and in need of modernization. In this Article, we argue that fundamental reform is necessary and highlight a series of key themes and topics that must be addressed to improve the regulatory process and promote better, more consistent management outcomes. While the Article draws on examples from frontier areas – in particular the U.S. Arctic Ocean – the recommended changes would apply to and benefit all areas of the OCS.

INTRODUCTION

In this Article, we build on *What About BOEM? The Need to Reform the Regulations Governing Offshore Oil and Gas Planning and Leasing*,¹

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which made the case that the regulations governing offshore oil and gas planning and leasing activities on the Outer Continental Shelf (OCS) are outdated, ineffective, and in need of revision. The previous Article showed that the nature of the offshore oil and gas industry is changing and that regulations applicable to Bureau of Ocean Energy Management (BOEM) obligations have not kept pace with those changes.²

Here, we take that call for reform one step further by suggesting potential improvements to the regulations that govern three of BOEM's substantive obligations: (1) development of five-year OCS oil and gas leasing programs; (2) sale of OCS leases to oil and gas companies; and (3) review of OCS exploration drilling plans. At these stages of the process, BOEM determines where and under what circumstances oil and gas companies may be allowed to explore for—and potentially develop and produce—hydrocarbons on the OCS. As in our earlier Article, most of the justifications presented here focus on frontier areas and, in particular, potential oil and gas activities in the U.S. Arctic Ocean. The changes we recommend, however, would apply to and benefit all areas of the OCS.

In crafting these recommendations, we highlight recent progress and identify the benefits of codifying changes through regulations. We do not, however, recommend specific language or address individual regulatory provisions that should be revisited. Recognizing that fundamental changes need to be made to the regulations, we focus on key themes that would improve the regulatory process and foster better management outcomes.

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1. Michael LeVine, Andrew Hartsig & Maggie Clements, *What About BOEM? The Need to Reform the Regulations Governing Offshore Oil and Gas Planning and Leasing*, 31 ALASKA L. REV. 231, 231–62 (2014).

2. Shortly before this Article went to press, DOI issued a rule to restructure and reorder many of BOEM's regulations. See *Leasing of Sulfur or Oil and Gas in the Outer Continental Shelf*, 81 Fed. Reg. 18,111, 18,111–76 (Mar. 30, 2016). The rule will add new sections, eliminate unnecessary text, and make other changes intended to clarify BOEM regulations. These changes are largely administrative in nature, and they do not remedy the substantive shortcomings identified in this Article. However, readers should be aware that the citations provided in this Article pre-date the new rule, which is scheduled to take effect at the end of May, 2016. *Id.* at 18,112. When the new rule takes effect, the citations to BOEM regulations in this Article may not correspond to BOEM's revised regulatory structure.

Further, recent decisions to stop certain offshore activities in frontier areas—like Shell’s decision to halt Arctic Ocean exploration “for the foreseeable future”³—create an opportunity to effectuate change. The Department of the Interior (DOI) can use this interval to better prepare for future leasing decisions and improve the overall management of the federal program. Interest in Arctic Ocean leasing and exploration, for example, has been cyclical.⁴ Proactive steps to address regulatory deficiencies should lead to better decisions, if and when interest reemerges. Meanwhile, there is likely to be continued demand for offshore leases in the Gulf of Mexico, and implementing these recommendations will help BOEM make smarter, more transparent, and more consistent decisions throughout its management of the OCS. The recent announcement by the Secretary of the Interior that DOI would pause all new coal leasing and comprehensively evaluate the federal coal program⁵ and the mounting public concern about the climate impacts from fossil fuel development reflect a recognition that the type of review we advocate is both possible and timely.

This Article suggests a pragmatic path toward meaningful reform of BOEM’s planning, leasing, and exploration plan review processes. Part I provides necessary background and context for our argument, including the importance of effective regulations, changes that have already been made, and the need for further reform. In Part II, we describe our suggested regulatory reforms. We recommend both overarching changes that are broadly applicable to new regulations as well as specific reforms targeting five-year planning, lease sales, and permitting and authorization of exploration activities on the OCS. These recommendations call for greater transparency, more attention to environmental and social risks, and the use of modern economic tools, among other improvements. We conclude with recommendations for a path forward for DOI.

3. Press Release, Shell Global, Shell Updates on Alaska Exploration (Sept. 28, 2015).

4. Michael LeVine, Peter Van Tuyn & Layla Hughes, *Oil and Gas in America’s Arctic Ocean: Past Problems Counsel Precaution*, 37 SEATTLE UNIV. L. REV. 1271, 1314–21 (2015) (noting the industry let most Arctic Ocean leases expire after a surge of leasing in the 1980s).

5. Secretarial Order No. 3338, Discretionary Programmatic Environmental Impact Statement to Modernize the Federal Coal Program, (Jan. 15, 2016), http://www.blm.gov/style/medialib/blm/wo/Communications_Directorate/public_affairs/news_release_attachments.Par.4909.File.dat/FINAL%20SO%203338%20Coal.pdf.

I. BACKGROUND AND CONTEXT

A. Effective Regulations Are Important for Effective Agency Processes

The primary function of agency regulations is to “implement, interpret, or prescribe law or policy.”⁶ Lawmakers frequently craft statutes that are “so broadly phrased that agencies have enormous leeway to fill in the gaps—both procedural and substantive—of the legislation so long as they keep within the terms of the governing statutes.”⁷ In other words, Congress frequently gives administrative agencies extensive discretion to set policies and procedures.⁸ An agency’s power “to administer a congressionally created and funded program necessarily requires the formulation of policy and the making of rules to fill any gap left, implicitly or explicitly, by Congress.”⁹ When confronted with such a gap, federal agencies are empowered to “elucidate a specific provision of the statute by regulation.”¹⁰

Regulations must be consistent with the underlying statutory framework and Congress’s intentions.¹¹ Truly effective regulations, however, go beyond that basic requirement. They are “consistent, sensible, and understandable”¹² and “promote predictability and reduce uncertainty.”¹³ Agencies must strive “to promote such coordination, simplification, and harmonization” among multiple regulatory entities.¹⁴ Moreover, existing regulations must be reviewed periodically to determine if they are “outmoded, ineffective, insufficient, or excessively burdensome.”¹⁵ As President Obama stated, federal agencies have a “mission to root out regulations that conflict, that are not worth the cost, or that are just plain dumb.”¹⁶

6. 5 U.S.C. § 551(4) (2012); Exec. Order No. 12,866, Sec. 3(d), 3 C.F.R. § 638 (1993).

7. WILLIAM F. FOX, JR., UNDERSTANDING ADMINISTRATIVE LAW 5 (4th ed. 2000).

8. *Id.*

9. *Morton v. Ruiz*, 415 U.S. 199, 231 (1974).

10. *Chevron v. Natural Res. Def. Council*, 467 U.S. 837, 844 (1984).

11. *See, e.g., id.* at 843 (noting that both agencies and courts “must give effect to the unambiguously expressed intent of Congress”). *See also* Exec. Order No. 12,866, *supra* note 6, at § 2(a) (noting that agencies must ensure that “regulations are consistent with applicable law”).

12. Exec. Order No. 12,866, *supra* note 6, at § 2(a).

13. Exec. Order No. 13,563, Sec. 1(a), 3 C.F.R. § 215 (2012).

14. *Id.* § 3.

15. *Id.* § 6.

16. Barack Obama, Commentary, *Toward a 21st-Century Regulatory System*, WALL ST. J. (Jan. 18, 2011).

Regulations that do not effectively fill the gaps left by Congress create the possibility of inconsistent agency decisions and increase the risk of litigation. Effective rules, on the other hand, streamline agency analyses, ensure good practices are carried forward, and help keep pace with innovation.

B. The Need to Reform Existing Rules

The Outer Continental Shelf Lands Act (OCSLA)¹⁷ is the primary law governing management of oil and gas activities in federal waters. The statute is intended to enable “expeditious and orderly development [of OCS resources], subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs.”¹⁸ OCSLA creates a four-stage process for management of offshore oil and gas activities: (1) developing a Five-Year Leasing Program, (2) holding the lease sales scheduled in that Program, (3) evaluating and permitting exploration activities, and (4) evaluating and permitting development and production activities.¹⁹ At each of these stages, the statute provides some direction, but its mandates are broadly stated and afford the agency substantial discretion.²⁰

In many respects, OCSLA itself should be updated to reflect the changing industry and lessons learned in the wake of the *Deepwater Horizon* tragedy and Shell’s failed 2012 drilling season.²¹ Congress, however, has taken no action to amend the statute and is unlikely to do so in the current political environment.

In contrast, DOI has made progress in advancing reforms using the authority and discretion afforded by the statute. Most notably, DOI disbanded the troubled Mineral Management Service (MMS) and replaced it with three independent successor agencies: BOEM, the Bureau of Safety and Environmental Enforcement (BSEE), and the Office of Natural Resources Revenue (ONRR).²² This change was intended to

17. 43 U.S.C. §§ 1331–56 (2012).

18. *Id.* § 1332(3).

19. *Id.* §§ 1337, 1340, 1344, 1345, 1351. *See also* LeVine, Hartsig & Clements, *supra* note 1, at 235–36 (explaining the four-stage process in detail). Additional information about this framework is also available at LeVine, Van Tuyn, & Hughes, *supra* note 4, at 1308–10.

20. LeVine, Hartsig & Clements, *supra* note 1, at 254–55.

21. *See* Andrew Hartsig, *Shortcomings and Solutions: Reforming the Outer Continental Shelf Oil and Gas Framework in the Wake of the Deepwater Horizon Disaster*, 16 OCEAN & COASTAL L. J. 269, 273 (2011). *See also* LeVine, Van Tuyn, & Hughes, *supra* note 4 (describing needed changes).

22. HENRY B. HOGUE, CONG. RESEARCH SERV., R41485, REORGANIZATION OF THE MINERALS MANAGEMENT SERVICE IN THE AFTERMATH OF THE DEEPWATER HORIZON OIL SPILL 14 (2010). *See also* LeVine, Hartsig & Clements, *supra* note 1, at

improve DOI's performance with respect to ensuring: (1) balanced and responsible development of energy resources on the OCS; (2) safe and environmentally responsible exploration and production and enforcement of applicable regulations; and (3) fair return to the taxpayer from offshore royalty and revenue collection and disbursement activities.²³

DOI has also made progress in modernizing some of its regulations. By and large, these changes have applied to the revenue collection functions of ONRR and to the safety and inspection functions of BSEE.²⁴

This progress has continued since publication of our earlier Article. In addition to the reforms described there, BOEM has increased the liability limits for offshore facilities to keep pace with inflation.²⁵ This update, which went into effect in January 2015, was the first time the liability limits were changed since they were required in 1990 by the Oil Pollution Act.²⁶

In February 2015, BSEE and BOEM proposed a new safety and spill prevention rule applicable to exploration in the U.S. Arctic Ocean.²⁷ When finalized, this rule will codify important new requirements, like same-season relief well capability, production of an Integrated Operations Plan, and seasonal restrictions to account for ice cover.²⁸ While important, the new safety and prevention requirements do not address all of the risks in the Arctic and do not take advantage of other opportunities to improve safety and response.²⁹

In March 2016, BOEM released proposed new rules that would update the manner in which the agency regulates air emissions from offshore operations.³⁰ The new rule is responsive to a provision in the

251 (discussing the reform in detail).

23. *The Reorganization of the Former MMS*, U.S. BUREAU OF OCEAN ENERGY MGMT. [hereinafter BOEM], <http://www.boem.gov/About-BOEM/Reorganization/Reorganization.aspx> (last visited Mar. 24, 2016).

24. LeVine, Hartsig & Clements, *supra* note 1, at 251–53.

25. Consumer Price Index Adjustments of the Oil Pollution Act of 1990 Limit of Liability for Offshore Facilities, 79 Fed. Reg. 73,832, 73,832–33 (Dec. 12, 2014).

26. *Id.* See also Press Release, BOEM, BOEM Adjusts Limit of Liability for Oil Spills from Offshore Facilities (Dec. 11, 2014) (announcing the increase in liability limits).

27. Oil and Gas and Sulphur Operations on the Outer Continental Shelf—Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf, 80 Fed. Reg. 9,916, 9,916–71 (proposed Feb. 24, 2015).

28. *Id.* at 9, 924–26.

29. *Arctic Resources and American Competitiveness: Oversight Hearing Before the Subcomm. on Energy and Mineral Res. of the H. Comm. on Nat. Res.*, 114th Cong. 10–11 (June 16, 2015) (statement of Michael LeVine, Pacific Senior Counsel, Oceana).

30. Air Quality Control, Reporting, and Compliance, 81 Fed. Reg. 19,717

2012 Consolidated Appropriations Act in which Congress transferred the authority to regulate air pollution from activities on the OCS offshore of the North Slope Borough in Alaska from the Environmental Protection Agency to DOI.³¹ The new rule applies to activities in the Gulf of Mexico and Chukchi and Beaufort Sea planning areas.

None of these regulatory changes address in any way BOEM's obligations to prepare five-year leasing programs or hold lease sales; nor do they improve the manner in which BOEM evaluates and approves exploration plans.³² The regulations that govern these phases of the OCSLA process remain essentially unchanged from their initial promulgation more than three decades ago.³³ They have not kept pace with changes in the industry. They fail to provide effective guidance, reflect new agency culture, incorporate updated analytical methodologies, or conform to modern policy priorities.

There have been repeated calls for fundamental reform of DOI's regulations. Both the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling (National Commission) and Council on Environmental Quality (CEQ) have urged reform of planning and leasing regulations.³⁴ DOI has the authority to make changes that would substantially improve decision-making. Updates to BOEM's regulations could: help address the disconnect between the old regulations and the new agency culture; remedy substantive problems that plague existing planning, leasing, and exploration processes; and more effectively implement new policy direction.³⁵ In addition, new rules could have the salutary benefit of providing certainty to oil companies. Echoing similar statements from ConocoPhillips and Statoil, Shell placed some of the blame for its withdrawal from the Arctic Ocean on an uncertain regulatory environment.³⁶ Clarifying the planning, leasing, and exploration plan approval processes could provide a measure of certainty.

(proposed Mar. 17, 2016) (to be codified at 30 C.F.R. pt. 550) (Fed. Reg. notice forthcoming), <http://www.boem.gov/Air-Quality-Proposed-Rule/>.

31. Consolidated Appropriations Act, 2012 Pub. L. No. 112-74, § 432(b), 125 Stat. 1048-49 (2011).

32. Arguably, the proposed Arctic regulations and air emission rule could affect the equipment companies are required to have and the standards for spill response and air emissions to which companies are held during exploration. They do not, however, reflect a comprehensive review of those regulations or address the more systemic deficiencies identified here.

33. LeVine, Hartsig & Clements, *supra* note 1, at 237-38.

34. *Id.* at 243-47.

35. *Id.* at 254-58.

36. See Press Release, Shell Global, *supra* note 3 (noting "the challenging and unpredictable federal regulatory environment in offshore Alaska").

II. RECOMMENDED REGULATORY REFORMS

There is both need and opportunity to update BOEM's regulations. Here, we explain the nature of some of the changes that would help modernize these rules. Part A of this section suggests overarching reforms needed to address problems that occur throughout the OCSLA process. Parts B, C, and D recommend more specific reforms to the regulations that govern development of five-year OCS oil and gas leasing programs, sale of OCS leases to oil and gas companies, and review of exploration drilling proposals.

For several reasons, we do not recommend specific language or address individual regulatory provisions that should be revisited. As was made clear in our earlier Article, the regulations governing planning, leasing, and permitting exploration are sufficiently inadequate so as to require fundamental change. Because the rules should be reconceived and rebuilt to implement OCSLA effectively, we focus on key themes that, if addressed properly, will improve the fundamental regulatory process and lead to better management outcomes. Specific regulatory language can be developed as the agency crafts new rules.

A. Overarching Reforms

Some regulatory shortcomings affect all stages of the OCSLA process or reoccur in different ways throughout BOEM's planning, leasing, and exploration regulations. Meaningful reform would address these overarching problems systemically at each phase of the process.

1. *Clarify and Improve the Use of National Environmental Policy Act Analyses in Management of the OCS*

Unlike other federal agencies, BOEM does not have its own guidance or regulations defining the way in which it fulfills its National Environmental Policy Act (NEPA) obligations.³⁷ The lack of specific guidance has contributed to calls from the National Commission, CEQ, and others for reform of the manner in which DOI addresses its NEPA

37. See, e.g., NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING—REPORT TO THE PRESIDENT 261 (2011) (noting that BOEM's predecessor agencies never developed formal NEPA guidance) [hereinafter NAT'L COMM'N, DEEP WATER]. In contrast, for example, the Bureau of Land Management and U.S. Fish and Wildlife Service have handbooks providing NEPA guidance. See generally BUREAU OF LAND MGMT., NATIONAL ENVIRONMENTAL POLICY ACT HANDBOOK H-1790-1 (2008); U.S. FISH & WILDLIFE SERV., NEPA FOR NATIONAL WILDLIFE REFUGES: A HANDBOOK (2014).

obligations with regard to OCS activities.³⁸ In addition, BOEM's compliance with NEPA has been the subject of a series of lawsuits that highlight the value of fundamental review.³⁹ Addressing these problems through new regulations will help BOEM better comply with its NEPA obligations, make better use of public expertise and input, and reach more robust decisions.

Effective regulations would clarify the way in which BOEM complies with NEPA requirements at each stage of the OCSLA process. As CEQ put it, BOEM should "[e]nsure that NEPA analyses fully inform and align with substantive decisions at all relevant decision points."⁴⁰ The problematic manner in which BOEM has approached NEPA compliance is particularly evident with regard to Chukchi Sea Lease Sale 193. The Environmental Impact Statement (EIS) underlying the decision to hold the sale was invalidated by the federal district court in Alaska on the grounds that the government failed to comply with a CEQ regulation addressing missing scientific information.⁴¹ On remand, the agency addressed that issue but did not fix a fundamental problem with the scenario it used to evaluate the potential impacts from development even though that problem had been identified in public comments on the original EIS and Supplemental EIS. The Ninth Circuit Court of Appeals then invalidated the Supplemental EIS.⁴² BOEM prepared a Second Supplemental EIS, and a subsequent Office of Inspector General Report identified a series of problems with the manner in which that analysis was prepared.⁴³ That Second Supplemental EIS has also been

38. See LeVine, Hartsig & Clements, *supra* note 1, at 245. DOI's own Inspector General has identified problems with NEPA compliance and called for the agency to "[e]xplore and encourage other processes, policies, and incentives that promote a culture of balanced stewardship and evaluate existing policies and practices that may impede the ability to achieve this balance." OFFICE OF THE INSPECTOR GEN., U.S. DEP'T OF THE INTERIOR, A NEW HORIZON: LOOKING TO THE FUTURE OF THE BUREAU OF OCEAN ENERGY MANAGEMENT, REGULATION AND ENFORCEMENT 35 (Dec. 7, 2010), <https://www.doioig.gov/sites/doioig.gov/files/A-New-Horizon-Public.pdf>.

39. See, e.g., LeVine, Van Tuyn & Hughes, *supra* note 4, at 1328-30, 1342-43 (describing NEPA-related litigation stemming from DOI's sale of OCS lease tracts in the Chukchi Sea).

40. COUNCIL ON ENVTL. QUALITY [CEQ], REPORT REGARDING THE MINERALS MANAGEMENT SERVICE'S NATIONAL ENVIRONMENTAL POLICY ACT POLICIES, PRACTICES, AND PROCEDURES AS THEY RELATE TO OUTER CONTINENTAL SHELF OIL AND GAS EXPLORATION AND DEVELOPMENT 4 (Aug. 16, 2010) [hereinafter CEQ, MMS NEPA POLICIES].

41. *Native Vill. of Point Hope v. Salazar*, 730 F. Supp. 2d 1009, 1018 (D. Alaska 2010).

42. *Native Vill. of Point Hope v. Jewell*, 740 F.3d 489, 505 (9th Cir. 2014).

43. OFFICE OF INSPECTOR GEN., U.S. DEP'T OF THE INTERIOR, INVESTIGATIVE REPORT OF MANAGEMENT INTERFERENCE WITH LEASE SALE 193 (Dec. 7, 2015), https://www.doioig.gov/sites/doioig.gov/files/WebRedacted_MgmtInterfere

challenged in court.⁴⁴

An important part of meeting NEPA obligations is ensuring that BOEM uses “tiering” appropriately and effectively. Tiering occurs when an agency relies on or incorporates analysis from a broader NEPA document in subsequent analyses.⁴⁵ Proper use of tiering can help avoid repetition in NEPA documents that analyze different stages of the OCSLA process. Improper use of tiering, however, can result in insufficient analysis and review.⁴⁶ In the wake of the *Deepwater Horizon* disaster, CEQ recommended that BOEM “reexamine its NEPA implementation policies to ensure that its use of tiering is both clear and well-defined, and is not being used to limit site-specific environmental analysis.”⁴⁷ Similarly, the National Commission recommended that BOEM develop “guidelines for applying NEPA in a consistent, transparent, and appropriate manner to decisions affecting OCS oil and gas activities.”⁴⁸

Regulations could help define when preparation of a new or supplemental EIS is required. At the exploration stage, for example, significant new information about projected impacts would necessitate a supplemental EIS. This situation is especially likely to arise in frontier areas or when operators intend to use new technologies. Regulations should also make clear that exploration activities do not qualify for categorical exclusion from the NEPA process.

To further this effort, BOEM can help define the rigorous cumulative impact analyses needed in an EIS to avoid the potential for geographic or temporal segmentation. These regulations could improve analyses by providing context-specific standards and methods to ensure that agency staff has the direction necessary to consistently produce high-quality cumulative impact analyses. Similarly, BOEM should require a full assessment of the effects of exploration and development in site-specific lease sale EISs before OCS leases are sold. Doing so would help fulfill NEPA’s purpose of “looking before you leap.”⁴⁹

nce_Lease193EIS.pdf.

44. Plaintiffs’ Opening Brief at 1, *Alaska Wilderness League v. Jewell*, 1:08-cv-00004-RRB (D. Alaska Aug. 28, 2015).

45. CEQ, Memorandum on Effective Use of Programmatic NEPA Reviews 7-9 (Dec. 18, 2014).

46. NAT’L COMM’N, DEEP WATER, *supra* note 37, at 260 (noting that “[a]s applied by MMS . . . tiering was not always consistent with its original purpose: instead, it created a system where deeper environmental analysis at more geographically targeted and advanced planning stages did not always take place.”).

47. CEQ, MMS NEPA POLICIES, *supra* note 40, at 23.

48. NAT’L COMM’N, DEEP WATER, *supra* note 37, at 261.

49. See, e.g., William J. Snape III, *Joining the Convention on Biological Diversity: A Legal and Scientific Overview of Why the United States Must Wake Up*, 10

New regulations would provide the opportunity to codify explicitly the requirement to analyze low-probability, high-risk events to help ensure that the agency and other stakeholders are prepared for a worst-case disaster. After the *Deepwater Horizon* tragedy, CEQ recommended that BOEM “take steps to incorporate catastrophic risk analysis going forward.”⁵⁰ Likewise, the National Commission recommended that BOEM “incorporate the ‘worst-case scenario’ calculations from industry oil spill response plans into NEPA documents and other environmental analyses or reviews” to inform the agency’s “estimates for potential oil spill situations in its environmental analyses.”⁵¹ To its credit, BOEM incorporated a “very large oil spill” risk analysis in its supplemental EISs for Chukchi Sea Lease Sale 193.⁵² New NEPA regulations would ensure that this type of risk is considered in all future OCS environmental analyses.

Some of the other changes suggested below—for example, rethinking the manner in which BOEM interprets the thirty-day deadline for review of an exploration plan—would affect the manner in which BOEM fulfills its NEPA obligations.⁵³ Addressing these issues through a comprehensive rulemaking would help provide consistency and clarity.

2. Increase Transparency

BOEM regulations can be revised to improve transparency and public participation in OCS decision-making processes. As President Obama stated on his first day in office, “[o]penness will strengthen our democracy and promote efficiency and effectiveness in Government.”⁵⁴ This principle is particularly important as public scrutiny of offshore oil and gas activities has grown in the wake of the *Deepwater Horizon* accident and Shell’s failed 2012 drilling season, and as the need to take action to address greenhouse gas emissions is increasingly recognized.⁵⁵

SUSTAINABLE DEV. L. & POL’Y 6, 10 (2010) (characterizing NEPA as “the epitome of a ‘look before you leap’ mandate”).

50. CEQ, MMS NEPA POLICIES, *supra* note 40, at 27.

51. NAT’L COMM’N, DEEP WATER, *supra* note 37, at 267.

52. BOEM ALASKA OCS REGION, OIL AND GAS LEASE SALE 193 IN THE CHUKCHI SEA, ALASKA: FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT VOL. I, APPENDIX D (2011).

53. *See infra* III.D.1.

54. Memorandum on Transparency and Open Government, 2009 DAILY COMP. PRES. DOC. 1 (Jan. 21, 2009).

55. Indeed, drilling for oil and gas in the Arctic Ocean became a campaign issue for some presidential candidates even in the early stages of the 2016 race. *See, e.g.,* Alan Rappoport, *Disagreeing with President, Hillary Clinton Says She Opposes Drilling in Arctic Ocean*, N.Y. TIMES (Aug. 18, 2015). The issue also

Transparency with respect to management of OCS activities can help the American public be assured that it is receiving fair market value for any OCS energy production and that the risks of any oil spills or other negative externalities are being fairly evaluated and considered.⁵⁶

To implement the president's commitment to open government, federal agencies were directed to take three important steps: publish information online; improve the quality of government information; and create and institutionalize a culture of open government.⁵⁷ DOI has created and updated an Open Government Plan through which it has taken some important steps to further transparency related to OCS activities.⁵⁸ Notably, the United States has spent more than three years working toward implementation of the Extractive Industries Transparency Initiative (EITI), "a global standard that promotes revenue transparency and accountability in the extractive sector" by requiring "report[s] in which governments and companies publicly disclose royalties, rents, bonuses, taxes and other payments from oil, gas, and mineral resources."⁵⁹ DOI has gone beyond the requirements of EITI and is planning to publish all revenue data collected by the ONRR from extractive companies operating on federal lands.⁶⁰

In addition, DOI has participated in the creation of data.gov, which provides high quality data sets for public use,⁶¹ and the agency is working to revamp BSEE's website to make it more user-friendly and accessible. With regard to exploration operations in the Arctic Ocean, BOEM allowed for public comments on the NEPA process related to

prompted twelve U.S. Senators to send a letter urging President Obama not to authorize drilling in the Arctic Ocean. *See* Letter from Jeffrey Merkley, et al., United States Senators to Barack Obama, President of the United States (Sept. 25, 2015), <http://www.sanders.senate.gov/download/sanders-whitehouse-on-arctic-drilling-?inline=file>.

56. *See* 43 U.S.C. § 1344(a)(4) (2012) (requiring that "[l]easing activities . . . be conducted to assure receipt of fair market value for the lands leased and the rights conveyed by the Federal Government."). *See also* JAYNI FOLEY HEIN, INST. FOR POLICY INTEGRITY, HARMONIZING PRESERVATION AND PRODUCTION: HOW MODERNIZING THE DEPARTMENT OF THE INTERIOR'S FISCAL TERMS FOR OIL, GAS, AND COAL LEASES CAN ENSURE A FAIR RETURN TO THE AMERICAN PUBLIC 7 (June 2015) (discussing the fair market value requirement for offshore energy production) [hereinafter FOLEY HEIN, HARMONIZING PRESERVATION].

57. Peter R. Orszag, Memorandum for the Heads of Executive Departments and Agencies: Open Government Directive, M-10-06, 2-4 (Dec. 8, 2009).

58. DEP'T OF THE INTERIOR, OPEN GOVERNMENT PLAN 3.0 (June 2014).

59. DEP'T OF THE INTERIOR, U.S. EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE FACT SHEET 1 (Feb. 2015).

60. U.S. EXTRACTIVE INDUS. TRANSPARENCY INITIATIVE, EITI ANNUAL ACTIVITY REPORT 2014 2, 7-8 (June 30, 2015), https://eiti.org/files/usa_2014_annual_activity_report_aar.pdf.

61. *See generally* *About Data.gov*, DATA.GOV, <http://www.data.gov/about#collected> (last visited Mar. 24, 2016).

Shell's exploration plan and approval of its oil spill response plan, and BSEE made public the letters denying requests for suspensions of operations on Chukchi and Beaufort Sea leases.⁶² There is no formal requirement for such comment periods, and BSEE has not made letters like these public in the past.

Using the notice-and-comment rulemaking process to formalize practices that promote transparency and openness will help build trust, improve public participation in the decision-making process, and fulfill President Obama's pledge to ensure openness in government.⁶³ New regulations could require that federal regulators post on their websites—in a proactive and timely fashion—all non-privileged information related to exploration activities, including permitting, inspections, monitoring, and enforcement. For example, regulations should require BOEM and BSEE to post on their websites proposed plans and plan revisions, requests for modification, approvals, and similar documents. In addition, BOEM and BSEE could be required to make available to the public information on monitoring and enforcement activities, as well as data concerning incidents and near-misses, including causal information.

Transparency and public participation also would be improved by regulations designed to ensure that the public has an opportunity to review and provide feedback on all non-confidential aspects of exploration plans. While public notice and comment is already required in any EIS process, BOEM can ensure that all agency environmental assessments (EAs), including those related to the evaluation of OCS exploration plans, are available for public notice and comment. Addressing these issues systematically in BOEM's planning, leasing, and exploration regulations would help ensure better decisions,

62. Press Release, BOEM, BOEM Invites Public Comment to Inform Environmental Assessment and Analysis of Chukchi Sea Exploration Plan (Apr. 10, 2015); BSEE, Letter of Response to Statoil Suspension of Operations Request (Oct. 16, 2015); BSEE, Letter of Response to Shell Suspension of Operations Request (Oct. 16, 2015).

63. Organizations seeking information from DOI related to OCS activities have historically been required to submit requests pursuant to the Freedom of Information Act (FOIA). This process, though important, can be cumbersome for both the requestor and government agency. It has led to litigation and inefficiency. *See* Amended Complaint for Declaratory and Injunctive Relief at 1, Nat. Res. Defense Council v. Mineral Mgm't Serv., 1:08-cv-00936-BSJ-GWG (S.D.N.Y. 2008) (alleging violations of the FOIA by the Minerals Management Service); Complaint for Declaratory and Injunctive Relief at 3, Alaska Wilderness League v. Bureau of Ocean Energy Mgm't, 1:13-cv-00586 (D.D.C. 2013) (alleging violations of the FOIA by the BOEM). Increasing publicly available information should not displace FOIA obligations, but it could eliminate the inefficiencies that result when the agency requires FOIA requests for non-privileged information that could simply be made available.

accountability, and public participation.

3. *Ensure Effective Incorporation of Traditional, Local, and Indigenous Knowledge*

Regulations governing OCS oil and gas activities do not explicitly ensure incorporation of traditional, local, and indigenous knowledge into the decision-making process. This deficiency is particularly significant in the U.S. Arctic, where Alaska Natives may have information about geographic areas or resources that is otherwise unavailable to agency decision-makers.⁶⁴ In his Executive Order addressing coordination in the Arctic, President Obama specifically recognized that, as part of responsibly managing resources in the Arctic region, “we must rely on science-based decision-making and respect the value and utility of the traditional knowledge of Alaska Native peoples.”⁶⁵ Similarly, the National Ocean Policy implementation plan calls on federal agencies to integrate “traditional ecological knowledge and scientific data collected by indigenous groups.”⁶⁶ A federal interagency working group recommended improving “decision-makers’ access to integrated scientific information and traditional knowledge relevant to management in the Arctic.”⁶⁷ While these policies represent progress, they are not codified in BOEM’s regulations.

Promulgating regulations establishing a set of procedures to solicit and incorporate traditional knowledge will facilitate efficient flow of information between local and indigenous knowledge-holders and agency officials; improved regulations should also help ensure that federal agencies fully consider traditional knowledge in the decision-making process. Collection of relevant information from local and indigenous knowledge-holders will also help ensure that local concerns are heard from the outset, which may avoid complications later in the process. Effective guidance and mechanisms for this participation have the potential to improve products, decisions, and community relations.⁶⁸

64. Henry P. Huntington, *Using Traditional Ecological Knowledge in Science: Methods and Applications*, 10 *ECOLOGICAL APPLICATIONS* 1270, 1270 (2000).

65. Exec. Order No. 13,689, 80 Fed. Reg. 4,191 (Jan. 21, 2015).

66. NAT’L OCEAN COUNCIL, NATIONAL OCEAN POLICY IMPLEMENTATION PLAN 21 (Apr. 2013).

67. INTERAGENCY WORKING GROUP ON COORDINATION OF DOMESTIC ENERGY DEVELOPMENT AND PERMITTING IN ALASKA, MANAGING FOR THE FUTURE IN A RAPIDLY CHANGING ARCTIC: A REPORT TO THE PRESIDENT 47 (Mar. 2013).

68. See Huntington, *supra* note 64, at 1273 (concluding that traditional ecological knowledge “has made a demonstrable difference in many research projects and management strategies”).

4. *Formalize and Codify Efforts to Improve Interagency Coordination*

BOEM regulations could formalize a strong interagency consultation process for OCS oil and gas decision-making. OCSLA specifically mandates that, “[i]n the enforcement of safety, environmental, and conservation laws and regulations, the Secretary shall cooperate with the relevant departments and agencies of the Federal Government and of the affected States.”⁶⁹ However, the planning, leasing, and exploration plan approval regulations set out no specific mechanisms for such cooperation.

The need for more effective coordination has been widely recognized. The National Commission recommended that the National Oceanic and Atmospheric Administration (NOAA) “and other federal agencies with appropriate expertise should be encouraged to act as cooperating agencies in NEPA reviews of offshore energy production activities, including exploration and development plans and drilling permit applications.”⁷⁰ It also recommended that “[f]ederal agencies that submit comments to [BOEM] as part of a NEPA process should receive a written response indicating how the information was applied and if it was not included, why it was not included.”⁷¹ More recently, a review of Shell’s troubled 2012 offshore drilling program in Alaska recognized the importance of “close coordination among government agencies in the permitting and oversight process.”⁷²

Better rules defining processes for interagency coordination should lead to more informed decisions and may help avoid the appearance that input from expert agencies has not been effectively considered.⁷³ Some steps have been taken in this direction. For example, NOAA acted as a cooperating agency on a recent BOEM-led Programmatic EIS to assess geological and geophysical activities in the Mid and South Atlantic Ocean planning areas.⁷⁴ More generally, NOAA and BOEM signed a Memorandum of Understanding to ensure that OCS decision-

69. 43 U.S.C. § 1334(a).

70. NAT’L COMM’N, DEEP WATER, *supra* note 37, at 265.

71. *Id.*

72. U.S. DEP’T OF THE INTERIOR, REPORT TO THE SECRETARY OF THE INTERIOR: REVIEW OF SHELL’S 2012 ALASKA OFFSHORE OIL AND GAS EXPLORATION PROGRAM 5 (Mar. 8, 2013).

73. Letter from James W. Balsiger, Acting Assistant Adm’r, NOAA, to James Kendall, Acting Reg’l Dir., BOEM (Feb. 28, 2011), <https://alaskafisheries.noaa.gov/sites/default/files/chukchiseaoilgas.pdf>.

74. See BOEM, ATLANTIC OCS PROPOSED GEOLOGICAL AND GEOPHYSICAL ACTIVITIES MID-ATLANTIC AND SOUTH ATLANTIC PLANNING AREAS: FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT 1-9 (2014) (noting that NOAA requested and was granted cooperating agency status).

making is science-based and fulfills both agencies' stewardship and conservation mandates.⁷⁵ More broadly still, President Obama established an interagency "National Ocean Council" to advance a "collaborative framework" for ocean and coastal stewardship and to "facilitate[] cohesive actions across the Federal Government."⁷⁶

In the Arctic, President Obama has recognized the need for more effective agency cooperation and created "an Arctic Executive Steering Committee . . . which shall provide guidance to executive departments and agencies . . . and enhance coordination of Federal Arctic policies across agencies and offices, and, where applicable, with State, local, and Alaska Native tribal governments and similar Alaska Native organizations, academic and research institutions, and the private and nonprofit sectors."⁷⁷ In addition, in 2011, the President created the Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska, which was charged with coordinating "the efforts of Federal agencies responsible for overseeing the safe and responsible development of onshore and offshore energy resources and associated infrastructure in Alaska."⁷⁸

BOEM can explicitly codify the manner in which it takes advantage of these and other mechanisms for coordination. Doing so would ensure that the coordination is implemented and continued through future administrations. In that way, the benefits of cooperation and coordination would become part of the long-term planning for the OCS.

B. Five-Year Program

In the five-year planning process, BOEM determines which areas of the OCS will be available for oil and gas leasing, and it schedules lease sales during the relevant five-year period. The plan, therefore, is the initial, broadest-scale step at which the government decides whether large swaths of the ocean will be made available for leasing to companies.

The regulations governing BOEM's five-year OCS leasing program, however, largely mirror the relevant statutory directives. For example, OCSLA Section 18 requires the Secretary of the Interior to "invite and

75. U.S. DEP'T OF THE INTERIOR & U.S. DEP'T OF COMMERCE, Memorandum of Understanding on Coordination and Collaboration Regarding Outer Continental Shelf Energy Development and Environmental Stewardship (May 19, 2011), http://www.noaaews.noaa.gov/stories2011/pdfs/05232011_NOAA-BOEMRE-MOU.pdf.

76. Exec. Order No. 13,547, 75 Fed. Reg. 43,023, 43,024 (July 19, 2010).

77. Exec. Order No. 13,689, 80 Fed. Reg. 4,189, 4,191 (Jan. 26, 2015).

78. Exec. Order No. 13,580, 76 Fed. Reg. 41,989, 41,989 (July 15, 2011).

consider suggestions” for the five-year program from a variety of entities; the implementing regulations merely restate that requirement, instructing the Secretary to “invite and consider suggestions” from the same entities.⁷⁹ The five-year program regulations offer no substantive direction to agency staff or decision-makers and little guidance about how to best satisfy the broad statutory mandate to craft a schedule of oil and gas lease sales that will best meet national energy needs while balancing the potential for environmental damage, discovery of oil and gas, and adverse impacts on the coastal zone.⁸⁰ It is, perhaps, no coincidence that the five-year leasing program process has been subject to significant controversy, and a substantial number of the programs promulgated by DOI have been challenged in court.⁸¹ Several of these challenges have been successful.⁸² BOEM has the discretion under existing law to revise the regulations governing the preparation of five-year OCS oil and gas leasing programs so that they provide useful guidance.

1. *More Effective Description of the Factors to be Considered Under OCSLA Section 18(a)(2)*

OCSLA Section 18(a)(2) specifies that the “[t]iming and location of exploration, development, and production of oil and gas among the oil- and gas-bearing physiographic regions of the [O]uter Continental Shelf shall be based on a consideration of” nine enumerated factors.⁸³ There is, however, no meaningful regulatory interpretation of the manner in which the agency should evaluate these factors. Some of the factors are considered quantitatively, others only qualitatively. More specific regulatory guidance would foster more consistent and transparent decisions and would help prevent uncertainty and controversy.

For example, Section 18(a)(2)(B) requires consideration of “an equitable sharing of developmental benefits and environmental risks among the various regions.”⁸⁴ BOEM seeks to meet this obligation using

79. Compare 43 U.S.C. § 1344(c)(1) (2012) with 30 C.F.R. § 556.16(a) (2012).

80. 43 U.S.C. § 1344(a).

81. See, e.g., LeVine, Van Tuyn & Hughes, *supra* note 4, at 1315, 1317, 1323, 1342 (describing legal challenges to five-year OCS leasing programs issued in 1980, 1982, 1986, 2007, and 2012). See also U.S. DEP’T. OF THE INTERIOR, BOEM, OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROPOSED PROGRAM 2017–2022 2-7, 2-8 (2016) (describing legal challenges) [hereinafter BOEM, PROPOSED PROGRAM 2017–2022].

82. See, e.g., BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81, at 2-7 to 2-8 (describing legal challenges).

83. § 1344(a)(2).

84. *Id.* § 1344(a)(2)(B).

a net benefits calculation.⁸⁵ However, the manner in which BOEM has undertaken this calculation has not always been transparent, which has resulted in allegations that the agency obscured the specific costs faced by individual regions and in legal challenges.⁸⁶ Regulations could define the factors and data the agency will consider in its “equitable sharing” calculus, require transparent disclosure of the gross costs and benefits experienced by each individual region (as well as onshore regions) of various leasing or “no sale” options, and establish guidelines for the net benefits calculation that would draw on the best available scientific and economic information.

Similarly, OCSLA Section 18(a)(2)(G) requires BOEM to consider “the relative environmental sensitivity and marine productivity of different areas of the [O]uter Continental Shelf.”⁸⁷ In developing the 2007–2012 five-year program, BOEM relied entirely on one study of coastal areas to meet this obligation. This approach was eventually invalidated by the U.S. Court of Appeals for the D.C. Circuit.⁸⁸ Regulations that more explicitly define how to consider “relative environmental sensitivity and marine productivity” would help BOEM carry out its legal mandate more effectively.

2. *Better Direction for the Balancing Required Under OCSLA Section 18(a)(3)*

OCSLA Section 18(a)(3) requires the Secretary to “select the timing and location of leasing, to the maximum extent practicable, so as 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.”⁸⁹ The agency has interpreted this obligation as a balance among the nine factors enumerated in Section 18(a)(2).

At present, there are no regulations to help BOEM find the right balance between the risk of harm to the environment and potential

85. See, e.g., U.S. DEP’T. OF THE INTERIOR, BOEM, PROPOSED FINAL OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROGRAM 2012–2017 116–19 (June 2012) (explaining BOEM’s “benefit-cost analysis”) [hereinafter BOEM, PROPOSED FINAL PROGRAM 2012–2017]. See also BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81, at 8-1 to 8-25 (explaining BOEM’s “equitable sharing considerations”).

86. See, e.g., *Ctr. for Sustainable Econ. v. Jewell*, 779 F.3d 588 (D.C. Cir. 2015); *Ctr. for Biological Diversity, et al. v. Dep’t of the Interior*, 563 F.3d 466 (D.C. Cir. 2009).

87. § 1344(a)(2)(G).

88. See *Ctr. for Biological Diversity*, 563 F.3d at 489 (requiring more complete analysis to identify most and least sensitive environmental areas).

89. § 1344(a)(3).

benefits from the pursuit of oil and gas. As a result, when explaining its approach to balancing in the 2012–2017 five-year program, BOEM has resorted to quoting extensively from the D.C. Circuit’s opinions evaluating challenges to its earlier balancing efforts.⁹⁰ Instead of reacting to court challenges, BOEM should promulgate its own regulations to provide guidance and standards that promote consistency and ensure compliance with the statute’s balancing mandate.

At times, BOEM has balanced its Section 18(a) considerations through a cost-benefit analysis, an approach endorsed by the D.C. Circuit⁹¹ and arguably required by Executive Orders.⁹² At the same time, BOEM has also asserted that Section 18(a)(3) balancing cannot be reduced to a formula:

[s]triking this balance based on a consideration of the principles and factors enumerated in section 18(a) is a matter of judgment for which no ready formula exists. Section 18 requires the consideration of a broad range of principles and factors rather than imposing an inflexible formula for making decisions.⁹³

Even if an “inflexible formula” is not appropriate, the critical balancing would nonetheless benefit from regulatory guidance. Effective regulations could require consideration of specific factors and the use of certain methods that would help decision-makers as they evaluate and balance the relevant information. For example, when considering the potential for environmental damage or adverse impacts on the coastal zone, regulations could require BOEM to consider factors including, but not limited to:

- the degree to which scientists understand the marine ecosystem and its capacity to absorb impacts that could result from OCS development;
- the presence or absence of unique or endemic species that could be affected by OCS oil and gas operations;
- other stressors, beyond new oil and gas activity, that affect ecosystem functioning or resilience; and
- the degree to which spill response operations could be

90. BOEM, PROPOSED FINAL PROGRAM 2012–2017, *supra* note 85, at 191–93.

91. *State of Cal. By & Through Brown v. Watt*, 668 F.2d 1290, 1317–18 (D.C. Cir. 1981) (finding it “reasonable to conclude that within the section’s proper balance there is some notion of ‘costs’ and ‘benefits’”).

92. Michael A. Livermore, *Patience is an Economic Virtue: Real Options, Natural Resources, and Offshore Oil*, 84 U. COLO. L. REV. 581, 627 (2013).

93. *Id.* at 588. In the Proposed 2017–2022 Program, BOEM similarly states, “[OCSLA] does not specify what the balance should be or how the factors should be weighed to achieve that balance, leaving to the Secretary the discretion to reach a reasonable determination under the existing circumstances.” BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81, at 2–5.

precluded by adverse environmental or weather conditions.

Regulatory interpretation of Section 18(a)(3) that requires consideration or use of particular factors or methods would help remove at least some of the uncertainty that has plagued past balancing efforts.

3. *Provide Direction on When and How to Account for Option Value in the Planning and Leasing Process*

Regulations should also mandate consideration of option value in the five-year planning process and describe how to conduct this analysis. In this setting, option value means the value of waiting for more information on energy prices and extraction risks before deciding whether or when to offer for lease the public's energy resources to private companies.⁹⁴ The concept's most familiar application is in the financial markets, where investors calculate the value of options to wait for more information on stock prices before deciding whether to buy or sell shares.⁹⁵ The same methodology can be applied to "environmental, social, and technological uncertainties."⁹⁶

Option value is applicable to the decisions made at the five-year planning stage, as well as the lease sale stage (as described below). At the planning stage, BOEM can account for differences in environmental and social uncertainties among the OCS regions to allow for more effective regional comparisons.⁹⁷

In fact, BOEM's failure to consider option value at the planning stage was one of the subjects of a challenge to the agency's 2012–2017 five-year program.⁹⁸ In that case, the petitioner argued that OCSLA required BOEM to explicitly consider and quantify the option value of delaying leasing in specific regions of the OCS. The D.C. Circuit ultimately upheld the 2012–2017 program, finding that quantification techniques were "not yet so well established that [BOEM] was required to use them" in the planning process. However, the court recognized that there is "a tangible present economic benefit to delaying the decision to drill for fossil fuels to preserve the opportunity to see what new technologies develop and what new information comes to light."⁹⁹ The D.C. Circuit's ruling "strongly suggests that future advancements in option value research could compel the agency to better quantify the

94. Livermore, *supra* note 92, at 627.

95. FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56, at 13.

96. *Id.*

97. See 43 U.S.C. § 1344(a)(2)(G) (requiring consideration of relative sensitivity of different areas of the OCS).

98. *Ctr. for Sustainable Econ. v. Jewell*, 779 F.3d 588, 610 (D.C. Cir. 2015).

99. *Id.*

option value associated with its leasing practices, which could pay enormous dividends to the American people by prioritizing lower-risk leasing and securing more favorable financial terms.”¹⁰⁰

BOEM recognized the importance of a more robust discussion of option value in its most recent proposed five-year program. For the first time, the agency includes some qualitative discussion of option value.¹⁰¹ However, it stopped short of a full quantitative analysis of the value of waiting for more information on oil prices and environmental costs before scheduling lease sales.¹⁰²

It is notable that BOEM adjusted its analysis to reflect the best available information and economic tools. The fact that the agency had to be challenged in court to do so, however, underscores the advantages that could be gained by crafting effective regulations that encourage or require the use of the best available analytical tools.

4. *Require Identification of Important Marine Areas and Adequate Baseline Scientific Information*

To ensure that decision-makers have a strong understanding of the ocean environments that may be affected by their choices, BOEM’s regulations should guarantee that certain information is available before an area can be included in a five-year program. At the broadest level, the availability of specific baseline scientific information will ensure informed decision-making. For example, a quantitative understanding of the marine environment, including robust food web models and identified important ecological areas, will help more fully evaluate choices about the potential effects of oil and gas operations on the OCS. Regulations should specify that, unless and until such data is available for a given area of the OCS, that area should not be made available for leasing in a five-year program.

In addition, at the five-year program stage, identification of important marine areas within each region, as well as measures necessary to preserve the integrity and function of those important areas, will help ensure good planning decisions. Important marine areas may include areas of high productivity or diversity; areas that are important for feeding, migration, or the lifecycle of species; areas of biogenic habitat, structure forming habitat, or habitat for endangered or threatened species; or areas important for subsistence purposes. If

100. Comments from Jayni Foley Hein, et. al., Inst. for Pol’y Integrity at NYU School of Law, to BOEM (Mar. 30, 2015), http://policyintegrity.org/documents/Comments_to_BOEM_2017-2022_Offshore_Program.pdf.

101. BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81, at 10-2 to 10-13.

102. *Id.*

necessary to preserve ecological integrity and functioning, regulations should require that important marine areas be excluded from the five-year program.

President Obama has recognized the value of this approach. In January 2015, he signed a Presidential Memorandum withdrawing from oil and gas leasing several important areas in the U.S. Arctic Ocean: Hanna Shoal, Barrow Canyon, a 25-mile buffer along the Chukchi coast, and two smaller subsistence-use areas in the Beaufort Sea.¹⁰³ In issuing this memorandum, the President exercised his authority under OCSLA Section 12(a).¹⁰⁴

BOEM has built on this approach in the Proposed 2017-2022 Program. The agency has identified a series of "Environmentally Important Areas," in the Beaufort and Chukchi Seas.¹⁰⁵ The agency has identified particular values of these areas and intends the evaluation in the program and accompanying EIS "to serve as a foundation to inform future analysis and related leasing decisions concerning these environmentally important areas."¹⁰⁶ Regulations specifically requiring protection of disproportionately important areas would continue this momentum and ensure that BOEM takes proactive steps during the five-year planning process to protect such areas.¹⁰⁷

Once important areas are identified, they must also be protected. Regulations, therefore, should impose specific, stringent precautions that must be in place before the sale of any OCS leases that could be reasonably expected to impact important marine areas. These rules would help protect areas in which leasing is prohibited and ensure the ongoing health of areas where leasing is not prohibited but where specific ecosystem functions merit other forms of protection. For example, operators could be required to locate exploration and development activities within lease blocks so that they minimize the potential for sound and other impacts to important areas. Requirements like these would help BOEM better meet its balancing obligations and ensure authorized activities will not harm the health and functioning of the marine ecosystem.

103. Memorandum on the Withdrawal of Certain Areas of the United States Outer Continental Shelf Offshore Alaska from Leasing Disposition, 2015 DAILY COMP. PRES. DOC. 59 (Jan. 27, 2015).

104. *Id.*

105. BOEM, PROPOSED PROGRAM 2017-2022, *supra* note 81, at 4-1, 11-1 to 11-3.

106. *Id.*

107. *See, e.g.*, Stan Senner, et al., Comment Letter on 2017-2022 Proposed Oil and Gas Leasing Program and Environmental Impact Statement (Mar. 30, 2015), <http://www.regulations.gov/#!documentDetail;D=BOEM-2014-0096-14343>.

5. *Codify the “Targeted Approach” to OCS Leasing for Frontier Areas*

In its 2012–2017 program, BOEM introduced a “targeted approach” to OCS leasing in the U.S. Arctic Ocean.¹⁰⁸ BOEM has continued that approach in the Proposed 2017–2022 Program.¹⁰⁹ Instead of opening an entire program area to OCS leasing, BOEM’s targeted approach excludes areas of lower petroleum potential that have high environmental or ecological importance. BOEM can refine and codify this “targeted” approach to leasing in its five-year program regulations.

The area-wide leasing approach that BOEM has followed since the 1980s is not mandated by OCSLA or BOEM’s existing regulations. It is a relic of former Secretary of the Interior James Watt’s commitment to “lease one billion acres” offshore.¹¹⁰ The area-wide approach, in which tens of millions of acres may be offered in single lease sales, makes effective environmental analysis very difficult, may limit competition, and seems to serve a limited political purpose for many areas in which there appears to be little industry interest or capability.

A targeted leasing approach has substantial benefits, and BOEM can take steps to codify it in regulation. Without a formal rulemaking, it is possible that future administrations would eliminate targeted leasing in the Arctic and continue area-wide leasing elsewhere. Exclusion of important marine areas to preserve ecological integrity and functioning, as described above, could be an important component of this approach. Currently, BOEM begins from the premise that an entire planning area will be included in the program and requires specific justification for removing areas. Regulations could reverse this premise and allow leasing only in areas in which potential benefits can be shown to outweigh risks. BOEM regulations could also consider placing an upper limit on the percentage of an OCS planning area that may be included in any one five-year leasing program.

Limiting the geographic scope of lease sales—for example by codifying BOEM’s “targeted approach” to leasing—would have the additional benefit of fostering more meaningful environmental NEPA analysis at the lease sale stage. It may also increase competition among companies for individual lease blocks.

108. BOEM, PROPOSED FINAL PROGRAM 2012–2017, *supra* note 85, at 5-6.

109. BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81, at S-5.

110. NAT’L COMM’N, DEEP WATER, *supra* note 37, at 63.

C. Lease Sales

The regulations that apply to the lease sale stage of the OCSLA process have significant shortcomings. Several of the changes highlighted above—including those related to codifying the targeted leasing approach, defining areas to be excluded from leasing, and improving NEPA compliance—would substantially improve the regulations at this stage of the process as well. In addition, BOEM could take additional steps to modernize its OCS leasing regulations.

1. *Require Consideration of Option Value in Setting Fiscal Terms for Lease Sales*

In addition to accounting for option value during the planning stage, BOEM should account for the value of the government's option to wait to sell leases when setting minimum bids for lease tracts.¹¹¹ In its proposed program for 2017–2022, BOEM discusses the possibility of raising minimum bids in lease sales to account for option value. BOEM notes that raising the minimum bid may increase buyer selectivity, elevating “the efficiency of the lease sale process.”¹¹² BOEM's five-year program also includes a “hurdle price analysis,” an economic method used to calculate the tipping point for particular investments. At the program development stage, BOEM uses the hurdle price to identify areas that show current economic promise, while deferring other timing, composition, and sale design decisions to the lease sale stage.¹¹³ For the first time, BOEM's proposed program for 2017–2022 added an estimate of the known environmental and social costs into the hurdle price calculation and now considers both the private and social costs of exploration and development in determining the hurdle price.¹¹⁴ This is a positive step; however, BOEM's application of the hurdle-price analysis fails to account for environmental and social cost uncertainty, which is also relevant to optimal timing and would help ensure a more fair return to the public.¹¹⁵

111. Livermore, *supra* note 92, at 630.

112. BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81 at 10–20. *See also* FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56, at 15 (discussing the need for BOEM to raise minimum bids).

113. BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81 at 10–13.

114. *Id.* at 10–12, 10–14.

115. *See* FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56 at 15–17; Comments from Jayni Foley Hein et al., Inst. for Pol'y Integrity at NYU School of Law, to BOEM (Mar. 30, 2015), http://policyintegrity.org/documents/Comments_to_BOEM_2017-2022_Offshore_Program.pdf (“BOEM can calculate a ‘social hurdle price’ by modifying the agency's existing dynamic programming model to include

Promulgating regulations relating to economic analysis of OCS lease sales would clarify and modernize BOEM's analytical methods and have significant benefits for the agency. Updating regulations to account for option value would likely increase revenue to the federal government, make lease sales more equitable, and allow BOEM to prevent potential litigation.

2. *Promulgate Rent and Royalty Provisions that Account for Externalities*

Oil and gas operations result in significant air, water, and noise pollution, among other impacts. In addition, these activities can contribute both directly and indirectly to climate change, through "upstream" emissions associated with oil and gas operations and through "downstream" emissions from the burning of fossil fuels.¹¹⁶ Often, companies do not pay for the full cost of these impacts—also known as externalities, or shared costs borne by third parties—because these costs do "not rise to the level of actionable legal claims,"¹¹⁷ and other policy tools that could help internalize these costs, like a national carbon tax, are not currently in place. Cumulatively, however, these costs are significant and quantifiable.¹¹⁸ For example, the Environmental Protection Agency (EPA) and other federal agencies use the social cost of carbon to estimate the climate benefits of rulemakings.¹¹⁹ BOEM estimates that offshore leases under its 2012–2017 program could generate up to 148 million tons of carbon dioxide-equivalent emissions;¹²⁰ the current social cost of carbon is about \$40 per ton of greenhouse gases emitted in 2015.¹²¹ Cumulatively, accounting for these

externalities associated with drilling and the corresponding uncertainty underlying them . . .").

116. Jessica Goad & Matt Lee-Ashley, *The Clogged Carbon Sink: U.S. Public Lands Are the Source of 4.5 Times More Carbon Pollution Than They Can Absorb*, CTR. FOR AMERICAN PROGRESS (Dec. 5, 2013), <https://www.americanprogress.org/issues/green/news/2013/12/05/80277/the-clogged-carbon-sink-u-s-public-lands-are-the-source-of-4-5-times-more-carbon-pollution-than-they-can-absorb/>.

117. FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56, at 18.

118. *Id.*

119. U.S. ENVTL. PROT. AGENCY, *The Social Cost of Carbon* (last updated Dec. 11, 2015), <http://www3.epa.gov/climatechange/EPAactivities/economics/scc.html>.

120. U.S. DEP'T OF THE INTERIOR, BUREAU OF OCEAN ENERGY MGMT. OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROGRAM: 2012-2017 tbl. 4.4.4-2 (July 2012), http://www.boem.gov/uploadedFiles/BOEM/Oil_and_Gas_Energy_Program/Leasing/Five_Year_Program/2012-2017_Five_Year_Program/2012-2017_Final_PEIS.pdf.

121. INTERAGENCY WORKING GROUP ON THE SOCIAL COST OF CARBON, TECHNICAL UPDATE OF THE SOCIAL COST OF CARBON FOR REGULATORY IMPACT

costs could generate billions of dollars that would help offset climate damages.

BOEM currently does not quantify or charge lessees for these costs. The agency, however, has authority to adjust its rent and royalty provisions to “account for impairment of recreational interests and environmental and social externalities.”¹²² OCSLA contains no specific limit on BOEM’s ability to charge rent,¹²³ and the agency has not specified the manner in which it decides the rental rates for offshore leases. Similarly, OCSLA establishes a minimum royalty rate, but does not impose a ceiling on that rate.¹²⁴

Addressing externalities and more fairly capturing costs is one of the driving factors behind the recently announced review of the federal coal program. Coal royalty rates are also set by regulation, and there is a direct parallel to oil and gas rent and royalty rates, especially as both programs are managed by DOI.

Clarifying the manner in which rental and royalty rates are established would help provide certainty and confidence that the public is receiving fair market value for its resources. In establishing more comprehensive rental and royalty rate regulations, BOEM could specify a methodology through which climate and other quantifiable externalities are paid by the lessee.¹²⁵

D. Approval of OCS exploration plans.

1. *Change the Approach to OCSLA’s Thirty-Day Timeline for Approval of Exploration Plans that have been “Deemed Submitted”*

OCSLA requires BOEM to approve or deny an exploration plan within thirty days of the date on which the exploration plan is “deemed submitted” by the agency.¹²⁶ In the past, BOEM has followed a cramped interpretation of the statute’s 30-day deadline under which it has deferred NEPA analysis of exploration plans until after the agency has deemed the plan submitted. As a result, the agency has either rushed its effort to complete an EA in a short 30-day window¹²⁷ or has skipped

ANALYSIS at 3 (2013) (giving the central estimate of \$38 per ton, in 2007 dollars, for emissions in the year 2015).

122. FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56, at 19.

123. *See* 43 U.S.C. § 1337(b)(6) (allowing the Secretary full discretion to prescribe rental provisions at the time the lease is offered).

124. *See id.* § 1337(a) (establishing minimum royalty rates); FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56, at 20–23.

125. FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56, at 20–23.

126. 43 U.S.C. § 1340(c).

127. *See, e.g.*, Press Release, Bureau of Ocean Energy Management, BOEM

NEPA analysis altogether using categorical exclusions.¹²⁸ BOEM's interpretation of the statutory time limit precludes effective environmental analysis and opportunity for meaningful public comment.

Under a more logical and careful approach, BOEM would complete appropriate NEPA analysis before it deems an exploration plan submitted.¹²⁹ Doing so would allow the time necessary to prepare a new or supplemental EIS or an environmental assessment and would allow time to solicit, review, and incorporate thoughtful public comment. As the National Commission recommended, BOEM "should not consider exploration plans officially 'submitted' until all of the required content, necessary environmental reviews, and other analyses are complete and adequate to provide a sound basis for decision-making."¹³⁰

2. *Make Conditional Approvals Impossible*

OCSLA directs DOI to either approve or deny exploration plans. In interpreting that obligation, DOI has granted "conditional approvals" when exploration plans meet some of the requisite standards but are not yet complete. The conditional approvals state that the plan is approved subject to the company submitting additional information, passing tests, and/or receiving other government approvals.¹³¹ For example, in 2012,

Invites Public Comment to Inform Environmental Assessment and Analysis of Chukchi Sea Exploration Plan (April 10, 2015) *available at* <http://www.boem.gov/press04102015/> (noting BOEM "has 30 calendar days to analyze and evaluate" Shell's 2015 exploration plan for the Chukchi Sea).

128. *See, e.g.,* NAT'L COMM'N, DEEP WATER, *supra* note 37, at 81–82 (describing categorical exclusion of exploration plans in the central and western Gulf of Mexico).

129. *See, e.g.,* Alaska Wilderness League v. Kempthorne, 548 F.3d 815, 834 (9th Cir. 2008) (noting that BOEM is required to undertake a complete environmental analysis under NEPA, and that the agency has flexibility to do so under OCSLA's statutory scheme), *overruled by* Alaska Wilderness League v. Kempthorne, 559 F.3d 916 (9th Cir. 2009).

130. NAT'L COMM'N, DEEP WATER, *supra* note 37, at 262. In the wake of the Deepwater Horizon accident, the Obama administration pointed to the 30-day timeframe as a problem that needed to be addressed. *See, e.g.,* Shashank Bengali, *Obama orders firms to change drill plans that mimic BP's*, MCCLATCHY DC (June 2, 2012), <http://www.mcclatchydc.com/news/politics-government/white-house/article24584410.html>.

131. *See, e.g.,* Letter from David Johnston, BOEM Alaska Regional Supervisor, to Susan Childs, Shell Alaska Venture Support Integrator, Manager (May 11, 2015) (approving Shell 2015 exploration plan subject to certain conditions), http://www.boem.gov/uploadedFiles/BOEM/About_BOEM/BOEM_Regions/Alaska_Region/Leasing_and_Plans/Plans/2015-05-11-Shell-EP-Conditional-Approval.pdf; Press Release, BOEM, BOEM Issues Conditional Approval for Shell 2012 Chukchi Sea Exploration Plan: All Proposed Activities Must Meet New Rigorous Safety and Environmental Standards (Dec. 16, 2011), <http://>

BOEM conditionally approved Shell's exploration plans for the Arctic Ocean before BSEE had approved Shell's oil spill response plans—even though the spill response plan is a required component of the exploration plan.¹³² Similarly, in 2015, BOEM approved Shell's Chukchi Sea exploration plan even though Shell had not yet submitted an approval of its Oil Spill Response Plan, had not received approval for its capping stack or containment system, and had not received needed approvals to harass marine mammals, among other deficiencies.¹³³

The momentum created pursuant to these conditional approvals may make it difficult or impossible for agency staff to change or cancel some or all of the proposed oil and gas operations. In addition, conditional approvals make it more difficult for BOEM and BSEE to ensure that a spill response plan is suitable for the scope of the proposed Exploration Plan. Ultimately, conditional approval undermines the integrity of the approval process, and BOEM should explicitly disallow this practice.

3. *Make Oil Spill Response Plans Subject to Public Review and Comment*

Operators' oil spill response plans should be made subject to public review and comment. "There is a heightened, broad public interest in oil spill response by academics, non-governmental organizations, local government, tribes, and other federal agencies working in the Arctic, particularly after the *Deepwater Horizon* spill and the mishaps of Shell's 2012 drilling season."¹³⁴ Many of these stakeholders have significant technical expertise, local knowledge of coastal conditions or weather patterns, and other information that would benefit agency review of spill plans. Regulations should ensure that stakeholders have an opportunity to share this knowledge so that BOEM, BSEE, and OCS operators can improve the effectiveness of their spill response plans.¹³⁵

www.boem.gov/BOEM-Newsroom/Press-Releases/2011/press12162011.aspx.

132. BOEM, *supra* note 131; Press Release, BOEMRE, BOEMRE Issues Conditional Approval for Shell Exploration Plan for Beaufort Sea: All Proposed Activities Must Meet New Rigorous Safety and Environmental Standards (Aug. 4, 2011), <http://www.boem.gov/BOEM-Newsroom/Press-Releases/2011/press0804a.aspx>.

133. David Johnston, *supra* note 131.

134. Letter from Marilyn Heiman, THE PEW CHARITABLE TRUSTS, Director, U.S. Arctic Program to Janice Schneider, Dep't of the Interior, Assistant Sec'y for Land and Minerals Mgmt. at 7 (May 27, 2015), <http://www.regulations.gov/#!documentDetail;D=BSEE-2013-0011-1099>.

135. BSEE is responsible for review and approval of spill response plans. Because an approved plan is necessary prior to exploration and could be combined with it, we include the public review recommendation here. *See* U.S.

The National Commission recommended joint agency and public review of oil spill response plans, additionally stating that these plans should be made available to the public once they are approved.¹³⁶ Codifying this review will help ensure full and fair public participation. To the extent that revised regulations require an EIS or EA with public review and comment for all exploration plans, stakeholders could review and comment on oil spill response plans as part of the NEPA process. To ensure that the agency is responsive to suggestions for improvement, the regulations could also require BOEM and BSEE to respond to comments and explain whether suggestions were acted upon and the reasoning behind the agency decision.

CONCLUSION AND PATH FORWARD

DOI has made progress toward better governance of OCS oil and gas activities, including important regulatory reforms. To date, however, these reforms have not substantively addressed OCS five-year planning, lease sales, or BOEM's process for reviewing and authorizing exploration activities. With respect to these phases of the OCSLA process, BOEM still relies on outdated regulations that have not kept pace with changes within the industry. These regulations do not reflect new priorities and policies that call for greater transparency, more attention to environmental and social risks, and the use of modern economic tools. Comprehensive reform is needed.

DOI should not lose the momentum it has created by transitioning from MMS to BOEM, BSEE, and ONRR. As BOEM and BSEE finalize the first tranche of regulatory reforms, they should lay the groundwork for broader reform. The approach DOI has taken to evaluating the coal program through a programmatic EIS provides one possible model to guide reform.¹³⁷

Another approach would be for Interior to issue a broad Advance Notice of Proposed Rulemaking (ANPR) to solicit feedback and suggestions for all of its regulations governing OCS management. This is the approach that EPA took, for example, when considering how to best regulate greenhouse gas emissions pursuant to the Clean Air Act

DEP'T. OF THE INTERIOR, BUREAU OF OCEAN ENERGY MGMT., *An Overview of the Assignment of Regulations Between the Bureau of Ocean Energy Management and the Bureau of Safety and Environmental Enforcement* (noting that BSEE retains authority for "all oil-spill related activities"), <http://www.boem.gov/uploadedFiles/ChartBSEEBOEMRegulatoryAuthorities.pdf>.

136. NAT'L COMM'N, *DEEP WATER*, *supra* note 37, at 266-67.

137. *See* Secretarial Order No. 3338, *supra* note 5 (summarizing the DOI's evaluation of the Federal Coal Program and its plans for modernizing it).

following the Supreme Court's decision in *Massachusetts v. EPA*.¹³⁸ The agency has since promulgated a series of targeted emissions controls.¹³⁹ Similarly, in 2015, BLM issued an ANPR to solicit feedback on federal oil and gas fiscal terms.¹⁴⁰ In the same manner, BOEM could issue a broad ANPR covering all of BOEM's regulations, including five-year planning, lease sales, and exploration plan approval.

DOI could then consider a process that incrementally reforms portions of the regulations. This process would take time—each portion of the regulations could easily take a year or more to complete—but that is all the more reason to begin now.

Announcing this type of comprehensive regulatory reform would send a strong signal to oil companies and to the public that DOI intends to keep moving forward with the transition from the old MMS and toward a new way of doing business on the OCS.

138. See generally, *Regulating Greenhouse Gas Emissions Under the Clean Air Act*, 73 Fed. Reg. 44,354 (July 30, 2008).

139. See *Regulatory Initiatives*, U.S. ENV'T PROT. AGENCY, <http://www3.epa.gov/climatechange/EPAactivities/regulatory-initiatives.html> (documenting current and forthcoming regulations on emissions).

140. *Oil and Gas Leasing: Royalty on Production, Rental Payments, Minimum Acceptable Bids, Bonding Requirements, and Civil Penalty Assessments*, 80 Fed. Reg. 76 (proposed Apr. 21, 2015) (to be codified at 43 C.F.R. pt. 3100), available at <http://www.regulations.gov/#!documentDetail;D=BLM-2015-0002-0001>.