# Renewable Energy Modernization Rule

# Final Regulatory Impact Analysis

# RIN: 1010-AE04

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**FINAL RULE**

**DEPARTMENT OF THE INTERIOR**

**Bureau of Ocean Energy Management**

**30 CFR Parts 285 & 585**
**April 2024**

## Contents

# Executive Summary

This regulatory impact analysis (RIA) provides supporting documentation and analysis for the final "Renewable Energy Modernization Rule." The U.S. Department of the Interior (Department), through the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE), is finalizing regulatory amendments to modernize the regulatory framework for leasing, planning, designing, installing, operating, and decommissioning renewable energy projects on the Outer Continental Shelf (OCS). BOEM prepared this RIA on behalf of BSEE and the Department.

Changes to Federal regulations require several types of economic analysis. Executive Orders (E.O.s) 12866, 13563, and 14094 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select a regulatory approach that maximizes net benefits (accounting for the potential economic, environmental, public health, and safety effects). E.O. 13563 further emphasizes the importance of quantifying both costs and benefits, reducing regulatory burdens, harmonizing rules, and promoting flexibility. E.O. 14094 modernizes regulatory review.

## ES.A Need for Regulatory Action

The Department's renewable energy program has matured over the past 13 years. Since 2013, BOEM has conducted 12 auctions and issued 33 commercial leases.[1] Coupling the administration's domestic renewable energy policies and the knowledge gained implementing the program thus far, the Department has identified opportunities to address unnecessary provisions within the renewable energy regulations. These changes will facilitate the expeditious development of renewable energy resources as set forth in section 207 of E.O. 14008, *Tackling the Climate Crisis at Home and Abroad*. The final rule reforms the renewable energy regulations, streamlines processes, clarifies ambiguous provisions, enhances compliance provisions, and corrects technical errors and inconsistencies. Through these changes, the Department aims to reduce administrative burdens, reduce costs and uncertainty, and introduce greater regulatory flexibility in a rapidly evolving industry to foster the growth of OCS renewable energy, while maintaining environmental safeguards.

## ES.B Baseline and Activity Scenario

The costs and benefits of the rule changes are compared against the baseline scenario. The baseline scenario, or status quo, represents BOEM's assessment of OCS renewable energy activities under the current regulatory framework, including current industry practices and standards that are consistent with that framework. To define the baseline, BOEM examined the best available information regarding project development on existing leases and considered foreseeable future leasing activities, State renewable energy targets, and technological change over time consistent with the previous, 2009 regulatory framework. Table 4 in section II.B presents the 20-year activity scenario. BOEM compares the regulatory changes to the regulatory baseline over a 20-year period of analysis.

[1] The number of active leases will change as additional leases are offered for sale, or if leases are merged or segregated.

## ES.C Total Estimated Compliance Cost Savings of the Rule

OIRA has determined that this rule is an economically significant regulatory action under E.O. 12866 section 3(f).[2]

Most of the revisions in the rule have negligible or no cost impact, while others may have second-order benefits that are difficult to quantify. BOEM identified four elements of the rule that have quantifiable effects. Table 1 (also Table 9 in section III.F) displays the estimated annualized and total cost savings of the rule. BOEM estimates the changes could save the OCS renewable energy industry approximately $127 million in annualized cost savings over the 20-year period of analysis (7 percent discounting). Tables 2 and 3 present the estimated 20-year net present value and annualized cost savings for the individual elements of the rule. These regulatory changes are expected to result in total present value direct compliance cost savings of $1.3 billion (7 percent discounting) or $1.9 billion (3 percent discounting) to the OCS renewable energy industry over the rule's 20-year period of analysis.

[2] Amended by Executive Order 14094: Modernizing Regulatory Review, and Executive Order 13563: Improving Regulation and Regulatory Review.

*Table 1: Total Estimated Compliance Cost Savings of the Rule (2024-2043, $millions)*

| Year | Undiscounted | Discounted at 3% | Discounted at 7% |
|---|---|---|---|
| 2024 | -$35.49 | -$34.46 | -$33.17 |
| 2025 | -$61.91 | -$58.35 | -$54.07 |
| 2026 | -$96.42 | -$88.24 | -$78.71 |
| 2027 | -$142.22 | -$126.36 | -$108.50 |
| 2028 | -$107.90 | -$93.08 | -$76.93 |
| 2029 | -$175.10 | -$146.64 | -$116.67 |
| 2030 | -$141.10 | -$114.73 | -$87.87 |
| 2031 | -$196.10 | -$154.80 | -$114.13 |
| 2032 | -$310.39 | -$237.89 | -$168.83 |
| 2033 | -$191.55 | -$142.53 | -$97.37 |
| 2034 | -$263.35 | -$190.25 | -$125.11 |
| 2035 | -$161.43 | -$113.22 | -$71.68 |
| 2036 | -$93.82 | -$63.89 | -$38.93 |
| 2037 | -$78.18 | -$51.69 | -$30.32 |
| 2038 | -$78.18 | -$50.18 | -$28.34 |
| 2039 | -$78.17 | -$48.71 | -$26.48 |
| 2040 | -$78.17 | -$47.30 | -$24.75 |
| 2041 | -$78.16 | -$45.91 | -$23.12 |
| 2042 | -$78.16 | -$44.57 | -$21.61 |
| 2043 | -$78.15 | -$43.27 | -$20.20 |
| **Total Cost[3]** | | **-$1,896.07** | **-$1,346.80** |
| **Annualized[4] Cost** | | **-$127.45** | **-$127.13** |

Note: The negative figures represent total cost savings of the changes.

[3] Due to rounding, the totals in tables throughout the document may be slightly different than the sums of the separate rows.

[4] Annualized costs and benefits from present values spreads the costs and benefits equally over each period, taking account of the discount rate*, OMB Circular A-4*, November 2023.

*Table 2: 20-Year Net Present Value by Regulatory Provision Category (2024-2043)*

| 20-Year Net Present Value ($millions) | | |
|---|---|---|
| **Net Present Value Cost Savings** | **3% Discount Rate** | **7% Discount Rate** |
| Meteorological Buoy Streamlining (§§ 585.605-.618) | -$16.3 | -$11.6 |
| Geotechnical Regulatory Revisions (§ 585.626) | -$294.2 | -$214.8 |
| Decommissioning Accounting Changes (§§ 585.525-.529) | -$1,591.0 | -$1,124.1 |
| Safety Management System Reporting (§ 285.812) | $5.5 | $3.7 |
| **Total Net Present Value** | **-$1,896.07** | **-$1,346.80** |

Note: The negative figures represent total cost savings of the changes.

*Table 3: 20-Year Annualized Cost Savings by Regulatory Provision Category (2024-2043)*

| 20-Year Annualized Accounting ($millions) | | |
|---|---|---|
| **Annualized Cost Savings** | **3% Discount Rate** | **7% Discount Rate** |
| Meteorological Buoy Streamlining (§§ 585.605-.618) | -$1.10 | -$1.10 |
| Geotechnical Regulatory Revisions (§ 585.626) | -$19.78 | -$20.28 |
| Decommissioning Accounting Changes (§§ 585.525-.529) | -$106.94 | -$106.11 |
| Safety Management System Reporting (§ 285.812) | $0.37 | $0.35 |
| **Total Annualized Cost Savings** | **-$127.4** | **-$127.1** |

Note: The negative figures represent total cost savings of the changes.

## ES.D Regulatory Flexibility Analysis (RFA)

The Regulatory Flexibility Act, 5 U.S.C. §§ 601-612, requires agencies to analyze the economic impact of regulations when there is likely to be a significant economic impact on a substantial number of small entities and to consider regulatory alternatives that will achieve the agency's goals while minimizing the burden on small entities. An RFA is provided in Section V to assess any potential impact of this rule on small entities. For the reasons explained in that section, BOEM has determined that the rule is unlikely to have a significant economic impact on a substantial number of small entities.

## ES.E Unfunded Mandates Reform Act (UMRA) Analysis

This rule does not impose an unfunded Federal mandate on State, local, or Tribal governments and does not have a significant or unique effect on State, local, or Tribal governments. Thus, the rule does not

have disproportionate budgetary effects on these governments. BOEM has determined that this rule does not impose costs on the private sector of more than $195 million in a single year.[5] Thus, the rule does not trigger the requirement to prepare a written statement under UMRA, and BOEM has not prepared such a written statement.

## ES.F Energy Effects Analysis

Under E.O. 13211, federal agencies must prepare a Statement of Energy Effects for significant energy actions as defined in section 4(b) of the order. A rule is a significant energy action if it is a significant regulatory action under E.O. 12866 or any successor order and is likely to have a significant adverse effect on the supply, distribution, or use of energy, or is designated by the Office of Information and Regulatory Affairs (OIRA) as a significant energy action.

OIRA has not designated the rule as a significant energy action and the rule does not add any regulatory compliance requirements that are likely to have a significant adverse effect on the supply, distribution, or use of energy. Rather, in aggregate, the revisions to BOEM regulations set forth in the rule will reduce regulatory burdens that could unnecessarily constrain the OCS renewable energy industry's development of domestically generated electricity. Thus, a Statement of Energy Effects is not required.

## Costs and Benefits Accounting Statement

| Category | Estimate (millions) | Units | | | Notes |
|---|---|---|---|---|---|
| | | Year Dollars | Discount rate | Period Covered | |
| **Benefits** | | | | | |
| Qualitative | Additional clarity, streamlining, and certainty in regulatory framework<br>Facilitating more expedient and responsible development of offshore renewable energy projects<br>Risk mitigation in instances where inspections can be accomplished without additional trips or personnel | | | | |
| **Costs** | | | | | |
| Annualized Monetized $millions/year | -$127.1 | | 7% | 20 years | Compliance cost savings due to site assessment, decommissioning, and geotechnical revisions.<br>Minor compliance costs for additional Safety Management System reporting. |
| | -$127.4 | | 3% | | |
| Total present value Monetized $billions | -$1.3 | | 7% | | |
| | -$1.9 | | 3% | | |

[5] The statutory requirement is $100 million, adjusted for inflation every year. In 2023, this value was $195 million.

# Section I. Introduction

## I.A Background

In 2005, Congress enacted the Energy Policy Act of 2005 (EPAct) and authorized the Secretary of the Interior (Secretary) to grant OCS leases for renewable energy activities.[6] Specifically, EPAct authorizes the Secretary to award OCS leases, right-of-way grants (ROWs), and right-of-use and easement grants (RUEs) for activities that produce or support the production, transportation, or transmission of energy from sources other than oil and gas, not otherwise authorized by the Outer Continental Shelf Lands Act (OCSLA) or other laws. EPAct requires the Secretary to competitively award such leases, ROWs, and RUEs unless the Secretary determines following public notice that competitive interest does not exist. EPAct also authorizes the Secretary to issue regulations to carry out the Act's grant of authority.

On April 29, 2009, the Minerals Management Service (MMS) issued regulations for leasing and managing OCS renewable energy activities under the Secretary's delegation of authority.[7] On May 19, 2010, the Secretary signed Order 3299 dividing MMS into three separate agencies: BOEM, BSEE, and the Office of Natural Resources Revenue. Pursuant to Order 3299, BOEM "exercise[s] the conventional (*e.g.*, oil and gas) and renewable energy-related management functions of the [MMS] not otherwise transferred pursuant to this Order including, but not limited to, activities involving resource evaluation, planning, and leasing." On October 18, 2011, BOEM's regulations were codified at 30 CFR chapter V, and its renewable energy regulations were, and remain, located in 30 CFR part 585. On January 31, 2023, the Department published a rule reorganizing Title 30 which transferred applicable renewable energy regulations from BOEM to BSEE.

## I.B Need for Regulatory Action

The administration has set an ambitious target to develop 30 gigawatts of offshore wind energy capacity by 2030. To meet this target and to incorporate the lessons learned since the program's inception over 15 years ago, the Department has identified components of the renewable energy regulations that currently impose unnecessary and costly requirements on industry lessees and the government and, in many cases, result in regulatory departures where compliance is neither feasible nor in the interest of the public. Moreover, delays to this rule would ultimately harm the program, stakeholders, and the goals of this administration and E.O. 14008; modernizing the Department's renewable energy regulations would facilitate more expedient and responsible development of offshore renewable energy projects.

## I.C How the Rule Will Meet the Need for Regulation

The rule modernizes the Department's OCS renewable energy regulations by implementing reforms identified by the Department with input from stakeholders and commenters, including industry representatives and the public. The changes include incremental funding of decommissioning accounts, flexible timing for geotechnical investigations, elimination of the BOEM permitting process for met

[6] EPAct amended OCSLA to add subsection 8(p) (43 U.S.C. § 1337(p))

[7] *Renewable Energy and Alternate Uses of Existing Facilities on the Outer Continental Shelf* (74 FR 19638)

buoys, revised requirements for certified verification agents, more specificity regarding safety management system requirements, and other regulatory improvements and clarifications. These changes are intended to facilitate responsible and expeditious development of renewable energy resources.

## Section II. Assumptions of Analysis

This section describes the assumptions used to conduct this economic analysis and to estimate the costs and benefits of the rule. These assumptions include the forecast horizon, the baseline, the affected population, cost factors, and activity levels.

### II.A Forecast Horizon

Adhering to the guidance in OMB Circular A-4, "Regulatory Analysis," this economic analysis estimates and presents an annual time stream of benefits and costs expected to result from the rule. The first year in this analysis is assumed to be 2024. Given the long lead time of OCS renewable energy projects, the multi-decade life of the lease, and the long timeframe needed to capture the cost savings of some rule elements (*e.g.*, changes to decommissioning account funding), BOEM uses a 20-year period of analysis.[8]

The factors driving the development of OCS renewable energy are inherently difficult to forecast. For example, offshore wind energy technology is rapidly evolving (*e.g.*, increasing size of turbines, development of floating wind turbines). As technology improves, development costs will decline, and turbines will likely be sited further offshore and in deeper waters. State-enacted energy policies also have a strong influence on the timeline of future renewable energy projects. Despite the difficulty in determining exactly how and when these factors will influence development, recent increases in offshore renewable energy targets and the extended operational time period support a 20-year period of analysis. BOEM believes it to be a reasonable forecast of the costs and benefits likely to result from this rulemaking and, thus, the forecast horizon extends to the year 2043.

### II.B Baseline

BOEM's baseline for this analysis is consistent with OMB's guidance as specified in OMB Circular A-4. The baseline scenario represents BOEM's best assessment of future OCS renewable operations under the previous, 2009 Renewable Energy Rule regulations. This rule generates considerable costs savings for the OCS renewable energy industry compared to the baseline and aims to reduce developer costs and uncertainty by streamlining overly complex and burdensome processes. The rule may also speed up some portions of the development process. Though these savings are significant, by themselves they will not generate substantial new activity and projects.[9]

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[8] Project operating periods (25-30 years) will extend beyond the time frame of this 20-year analysis, and BOEM expects important cost savings and other qualitative benefits to continue beyond the 20-year analysis period; however, most of the proposed rule's cost savings are captured in this 20-year analysis period.

[9] Individual State renewable energy targets and associated incentives are generally the strongest factors driving offshore wind activity. State targets are described as a primary target in this report by DOE: https://www.energy.gov/sites/default/files/2021-08/Offshore%20Wind%20Market%20Report%202021%20Edition_Final.pdf.

The analysis presented below compares the rule impacts against the baseline. In this analysis, *cost savings* that decrease the industry burden compared to the baseline are represented as negative costs. The baseline includes costs and benefits arising from BOEM's 2009 Renewable Energy Rule and current industry guidance documents and standards consistent with those regulations. The baseline assumes that the industry is following existing regulations and the recommendations and best practices articulated in applicable industry guidance documents and standards.

## II.C Affected Population

The rule affects energy companies with OCS renewable energy leases as well as future bidders, applicants, lessees, and grant holders. (§§ 585.107-585.113). The impact on existing lessees depends in part on whether a regulatory change conflicts with an existing lease term. BOEM anticipates that in most instances, lessees would prefer to resolve such conflicts in favor of the rule. Currently, BOEM has 33 active commercial leases and additional leases are added periodically as new wind energy areas are auctioned.

## II.D Cost Factors

BOEM used the best available cost data to estimate cost savings associated with the rule. Where cost data was unavailable, BOEM relied on its subject matter experts familiar with the compliance activities. BOEM requested updated cost data from informed stakeholders during the public comment period, however, none was provided.

For costs related to the decommissioning account savings, BOEM relied on three decommissioning reports: one for a previous offshore wind project[10,11] and two for projects currently under development.[12,13] These studies provide several estimates for decommissioning costs with ranges that depend on a number of highly variable factors such as the number of turbines, the length of subsea transmission cable that must be removed, the distance and travel time from the nearest port, and the existence of any other support infrastructure. Consequently, each individual project estimate is not likely to be representative of projects that do not share similar characteristics. However, together these three project estimates do represent a wide range of factors that have the largest impact on estimates. These three project-specific decommissioning cost estimates can be combined to produce a reasonable range of expenses, ranging from a low estimate of $2.01 million per turbine to a high estimate of $3.17 million per turbine and an average decommissioning expected cost estimate of $2.5 million per turbine. Based on these figures, BOEM concluded that the decommissioning of each turbine should be given a cost of $2.5 million[14] to calculate the cost savings associated with the incremental funding of decommissioning accounts.

[10] The Cape Wind Energy Project was first proposed by Cape Wind Associates, LLC (CWA) in November 2001. CWA relinquished the lease on May 10, 2018.
[11] PCCI, Inc. *Decommissioning Cost Estimation for the Cape Wind Energy Project*. December 2014.
[12] ICF, Inc. *Updated Decommissioning Cost Estimate for Vineyard Wind*. November 2020.
[13] DNVGL. *South Fork Wind Farm Decommissioning Cost Estimate.* January 2021.
[14] Costs for future OCS project decommissioning may differ from this estimate for several reasons, including uncertainty in future technology, costs and project design.

The met buoy changes eliminate the 2009 Renewable Energy Rule regulatory requirements to develop a site assessment plan (SAP) and to obtain BOEM approval before deploying a met buoy. The purpose of the SAP is to provide a description of the proposed site assessment activities that are planned on a commercial lease. BOEM estimated that each SAP for a met buoy costs approximately $1.096 million to prepare. This estimate was informed by cost data from two current lessees who have gone through the permitting process and includes the cost of developing the SAP, which is often contracted out to an engineering services firm, as well as ancillary work (*i.e.*, meetings) in support of the SAP report. Given high start-up mobilization costs for the requisite surveys needed to complete an SAP, lessees tend to bundle multiple survey requirements into a single survey or set of surveys, including combining SAP survey work with other lease survey requirements. In doing so, lessees can spread out the high, fixed mobilization costs of vessels and engineering equipment. The changes to the SAP regulations are unlikely to change the multi-purpose nature of survey work. Therefore, a reduction in the number of survey trips is unlikely and is not considered in this analysis.

The revisions to the geotechnical regulations allow lessees to spread out the costs of some geotechnical investigations over time and potentially reduce the number of site investigations required. Final turbine locations are unknown at the COP stage, and experience has shown that a sampling of deep borings is enough at that stage to characterize the geology of the area. BOEM estimates that the timing of geotechnical investigations could be delayed by as much as 2 years from the existing regulatory requirement. Fewer delays generate time value of money cost savings to lessees. This timing flexibility is accompanied by a potential reduction in the number of investigations by eliminating the mandatory requirement for a core analysis at each turbine location. This analysis assumes the rule could result in a 10 percent reduction in the number of required investigations if a lessee can demonstrate that the project area consists of generally uniform geophysical characteristics (see section III.C).[15] BOEM estimates an average site investigation cost of $200,000 per turbine location based on a cost range for deep borings and cone penetrometer tests (CPT).[16] This value is derived from the assumption that 20 percent of investigation work would consist of deep borings and 80 percent would consist of CPTs. Costs for deep borings range between $250,000 and $400,000, and between $120,000 and $200,000 for CPTs.

## II.E Activity Levels

To analyze the rule and compute its cost savings, BOEM developed a baseline activity scenario. This particular scenario anticipates the potential for over 80 gigawatts of installed capacity over the 20-year period considered for this rule. Actual activity in each year presented could end up being higher or lower based on a range of factors. The estimates presented here are based on recent forecasts that incorporate existing project timelines, future leasing expectations, and state procurement targets, and reflect assumptions about technological and project cost changes over time. The baseline activity scenario for installed capacity is presented in Table 4, "Estimated MWs Installed."[17] To derive the estimated number of turbines installed, BOEM applied an average turbine size of 12-MW for 2024-2029;

[15] It is difficult to predict *ex ante* the reduction in investigations required. The 10 percent reduction in number of investigations is based on the professional judgment of BOEM subject matter experts.

[16] Cost information is from BOEM subject matter experts familiar with the geotechnical investigation costs. Mobilization and demobilization costs are excluded because these costs would be incurred similarly under the 2009 baseline *and* the final changes to the regulations.

[17] MW means megawatt, which is one million watts of electricity.

15-MW for 2030-2034; and 20-MW for 2035-2043 based on expected industry trends in turbine size.[18] The numbers of "Estimated Turbines Installed" (Table 4) were used to estimate the cost savings from the decommissioning account and geotechnical revisions described in section III.B-C.

BOEM has approved 15 SAPs over the past fifteen years. Based on the average historical SAP activity and anticipated demand from existing and future lease activities, BOEM used a simplified assumption of one SAP per year over the 20-year period of analysis. In any single year, the number of SAPs may be higher or lower than one. The "Estimated SAPs Approved" (assumed to be 1 annually in Table 4) was used to estimate the cost savings associated with SAP changes described in section III.A.

*Table 4: 20-Year Activity Scenario (2024-2043)*

| Time | Year | Estimated MWs Installed | Estimated Turbines Installed | Estimated SAPs Approved |
|---|---|---|---|---|
| 1 | 2024 | 938 | 78 | 1 |
| 2 | 2025 | 1,584 | 132 | 1 |
| 3 | 2026 | 2,386 | 199 | 1 |
| 4 | 2027 | 3,188 | 266 | 1 |
| 5 | 2028 | 2,740 | 228 | 1 |
| 6 | 2029 | 3,960 | 330 | 1 |
| 7 | 2030 | 4,432 | 295 | 1 |
| 8 | 2031 | 6,148 | 410 | 1 |
| 9 | 2032 | 8,436 | 562 | 1 |
| 10 | 2033 | 5,800 | 387 | 1 |
| 11 | 2034 | 7,050 | 470 | 1 |
| 12 | 2035 | 5,750 | 288 | 1 |
| 13 | 2036 | 3,500 | 175 | 1 |
| 14 | 2037 | 3,000 | 150 | 1 |
| 15 | 2038 | 3,000 | 150 | 1 |
| 16 | 2039 | 3,000 | 150 | 1 |
| 17 | 2040 | 3,000 | 150 | 1 |
| 18 | 2041 | 3,000 | 150 | 1 |
| 19 | 2042 | 3,000 | 150 | 1 |
| 20 | 2043 | 3,000 | 150 | 1 |
| **Total** | | 76,912 | 4,870 | 20 |

The scenario is not intended to predict or presuppose BOEM approval of any current or future projects. It is simply an illustrative estimate of future activity levels to inform the cost savings analysis of this rule. The Administration has set goals of deploying 30 gigawatts of offshore wind by 2030 and 15 gigawatts of floating offshore wind by 2035, which could unlock a pathway to deploying 110 gigawatts or more by

[18] Fuchs, R., Zuckerman, G., Beiter, P., Duffy, P., Shields, M., Musial, W., Cooperman, A., Bredenkamp, S. *The Cost of Offshore Wind Energy in the United States from 2025 - 2050*. NREL Technical Report, *in review*. An excerpt of the relevant chapter is provided separately in the Renewable Energy Modernization Rule Docket No. BOEM-2023-0005)

2050.[19] BOEM continues to partner with other federal agencies on a robust set of near-term and long-term efforts in support of these goals.

## Section III. Cost Savings of the Rule

The following sections provide BOEM's summary of the significant regulatory changes along with the quantitative or qualitative impacts on cost, efficiency, or clarity.

### III.A Decommissioning Accounts and Other Financial Assurance Revisions (§§ 585.525-.529)

This rule reduces the upfront capital costs for lessees and grant holders by explicitly allowing incremental funding of decommissioning accounts. A decommissioning account is one of several financial assurance instruments available to protect the taxpayer and to assure BOEM that adequate capital to decommission a project is available. BOEM interpreted its previous 2009 regulations to require full funding of decommissioning costs for each turbine prior to turbine construction. This "fully funded" requirement prior to installation placed an upfront financial burden on lessees and grant holders. The rule allows incremental funding of a decommissioning account during the operational period of the renewable energy project and, thereby, makes it less burdensome for the lessee or grant holder, while still protecting the taxpayer as decommissioning accounts will still be fully funded through the operations period and before any turbines are in need of decommissioning. If a lessee did become insolvent during its commercial operations period, it would likely be able to transfer its lease interest to a solvent entity as revenues would be expected to exceed operating costs. BOEM notes that this change is subject to bureau approval on a case-by-case basis depending on several factors including whether a particular project poses a high financial risk.

General requirements for financial assurance instruments are included in § 585.525. Sections 585.526-.529 provide further information on the suite of authorized financial assurance instruments that may be used by lessees to ensure lease and grant obligations are met. Various instruments can be used to provide financial assurance to BOEM, including bonds, letters of credit, and decommissioning accounts.

The amendments in § 585.529 allow incremental funding of a decommissioning account per a BOEM-approved schedule during the life of the lease. At BOEM's discretion, a lessee or a grant holder will be allowed to contribute to a decommissioning account incrementally over time using funds from a project's revenue stream. BOEM assumes most lessees and grant holders will request incremental funding. Although BOEM will evaluate these requests on a case-by-case basis, for purposes of estimating the economic benefits of the rule, this analysis presumes that BOEM will approve such requests in whole or in part. This would free up a lessee's or grant holder's capital in the near term (when the project's revenue stream is likely to be negative or minimal) and provide savings through the basic time value of money economic concept.

To estimate the time value of money savings attributable to incrementally funded decommissioning accounts, BOEM estimated the percentage of lessees and grant holders likely to use decommissioning

[19] In the baseline activity scenario presented in Table 4, later-year estimates are designed to align with a pathway toward developing 110 GW or more by 2050, as presented in the Department of Energy's report, *Advancing Offshore Wind Energy in the United States*. https://www.energy.gov/sites/default/files/2023-03/advancing-offshore-wind-energy-full-report.pdf

accounts to meet financial assurance requirements. BOEM estimated that approximately 25 percent of OCS wind facilities shown in Table 4 will use decommissioning accounts to meet financial assurance requirements. The other 75 percent are expected to use other instruments, primarily letters of credit.[20]

Next, under the regulatory baseline, BOEM assumed that the 25 percent of projects covered by decommissioning accounts would fully fund the account before turbine installation. BOEM used an average estimated cost of $2.5 million per turbine.[21] To analyze the rule changes, BOEM distributed the $2.5 million per turbine cost in 20 percent increments over years 16-20 of a project, the last 5 years of a typical 20-year power purchase agreement.[22,23] Using a 7 percent discount rate, the time value of money cost savings is $1,756,950 for each affected turbine; the overall savings from this change are presented below in Table 5. BOEM estimates this change will result in cost savings of $1.1 billion over 20 years (7 percent discounting).

[20] BOEM interpreted its previous regulations as permitting letters of credit to cover financial assurance obligations so long as the letters meet the criteria of § 585.525 and § 585.526(a). Since many existing lessees are legally organized under large foreign parent companies, BOEM estimated that the majority of lessees could be eligible for letters of credit based on the financial strength of their parent company. The rule explicitly allows letters of credit as permissible forms of financial assurance.

[21] *See supra* notes 6-8 and accompanying text.

[22] BOEM's approval of decommissioning funding is on a case-by-case basis, however this sample schedule has been previously accepted, given the financial information provided by the specific lessee. Because BOEM may not approve all requests or because more lessees and grant holders could use decommissioning accounts, the estimated amounts are estimates.

[23] The current average power purchase agreement (PPA) duration is 20 years. As projects will continue to generate electricity beyond this time frame, this represents a conservative assumption for fully funding a decommissioning account.

*Table 5: 20-Year Compliance Cost Associated with Decommissioning Regulation Changes (2024-2043)*

| Year | Undiscounted | Discounted at 3% | Discounted at 7% | Estimated Number of Turbines Covered by Decommissioning Accounts |
|---|---|---|---|---|
| 2024 | -$24,333,513 | -$23,624,770 | -$22,741,601 | 33 |
| 2025 | -$45,564,217 | -$42,948,644 | -$39,797,552 | 50 |
| 2026 | -$74,919,921 | -$68,562,341 | -$61,156,973 | 66 |
| 2027 | -$123,625,889 | -$109,840,001 | -$94,313,599 | 57 |
| 2028 | -$81,406,698 | -$70,222,133 | -$58,041,851 | 83 |
| 2029 | -$151,363,364 | -$126,764,435 | -$100,859,801 | 74 |
| 2030 | -$108,528,798 | -$88,243,844 | -$67,586,281 | 102 |
| 2031 | -$151,693,820 | -$119,748,502 | -$88,287,184 | 141 |
| 2032 | -$279,671,822 | -$214,345,164 | -$152,122,941 | 97 |
| 2033 | -$154,358,278 | -$114,857,055 | -$78,467,921 | 118 |
| 2034 | -$240,343,273 | -$173,629,094 | -$114,185,357 | 72 |
| 2035 | -$147,179,057 | -$103,228,430 | -$65,349,262 | 44 |
| 2036 | -$81,510,620 | -$55,504,766 | -$33,824,010 | 38 |
| 2037 | -$65,885,620 | -$43,558,157 | -$25,551,580 | 38 |
| 2038 | -$65,885,620 | -$42,289,473 | -$23,879,981 | 38 |
| 2039 | -$65,885,620 | -$41,057,740 | -$22,317,739 | 38 |
| 2040 | -$65,885,620 | -$39,861,884 | -$20,857,700 | 38 |
| 2041 | -$65,885,620 | -$38,700,858 | -$19,493,178 | 38 |
| 2042 | -$65,885,620 | -$37,573,649 | -$18,217,923 | 38 |
| 2043 | -$65,885,620 | -$36,479,271 | -$17,026,096 | 38 |
| **Total Cost Savings** | | **-$1,591,040,210** | **-$1,124,078,528** | |
| **Annualized Cost Savings** | | **-$106,942,894** | **-$106,105,061** | |

Note: The negative figures represent total cost savings of the changes.

Table 5 reflects only the time value of money savings arising from incrementally funding a decommissioning account; the changes also provide greater flexibility to lessees and grant holders to meet their financial assurance obligations, which are neither quantified nor shown in the table.

**Base Bond Amount Change**

Under the regulatory baseline scenario, BOEM requires a $100,000 lease-specific bond or another approved financial assurance instrument before executing a commercial lease. BOEM also requires supplemental financial assurance before approving an SAP in an amount equal to 1 year's rent plus the estimated cost of decommissioning any site assessment facilities detailed in the SAP and any other accrued obligations. The rule eliminates the initial lease-specific financial assurance of $100,000 and the

supplemental financial assurance for decommissioning met buoys.[24] BOEM is replacing the $100,000 lease-specific financial assurance requirement with one in an amount equal to a year's rent due before the lease is executed.[25] While there may be an increase in the *initial* financial assurance required when annual rent payments exceed $100,000, that increase would be offset by eliminating the $100,000 financial assurance requirement at lease execution and the met buoy decommissioning financial assurance (see table below).

When met buoys are used in lieu of met towers, as this analysis assumes, the lessee would realize a greater reduction due to the avoided financial assurance for decommissioning. Therefore, this change is not expected to add any incremental burden.[26] BOEM anticipates negligible cost savings from this change though it better aligns a lessee's financial assurance with its accrued obligations to the U.S. Government.

**Postponement of Financial Assurance**

The 2009 Renewable Energy Rule requires a lessee to provide supplemental financial assurance before BOEM approves a construction and operations plan (COP). The rule postpones this supplemental financial assurance requirement because a lessee accrues no additional obligations at the COP approval phase of the project that necessitate guaranteeing the U.S. taxpayer against possible default.[27] While this change provides important clarity to lessees regarding BOEM's financial assurance requirements, BOEM estimates zero cost savings arising from this change. BOEM believes this supplemental financial assurance is unlikely to be assessed under its existing regulations because a lessee accrues no additional obligations at COP approval that require financial assurance.

## III.B Met Buoy Permitting (§§ 585.600-585.601, 585.605)

In 2009, when BOEM's regulations were first promulgated, BOEM expected that the primary structures used for meteorological data gathering would be meteorological towers. The SAP regulations provided for evaluation and oversight of the installation and removal impact of these towers. Technological advancements have enabled buoys to supplant towers as the state-of-the-art technology for this purpose, and these devices generally would require a permit from the U.S. Army Corps of Engineers (USACE). BOEM has therefore found that its 2009 regulations to be largely excessive and duplicative for meteorological buoys, the use of which is significantly less impactful. The rule eliminates the duplicative SAP regulations currently governing OCS deployment of met buoys that are used primarily for wind resource assessment on commercial leases. The regulatory change clarifies that a BOEM-issued limited lease is not required for met devices (buoys or towers) deployed on locations not included in a

[24] *See infra* section III.B.

[25] The average OCS renewable energy lease is 116,150 acres. Under the rule, the initial financial assurance amount for the average-sized lease would change from $100,000 to approximately $348,450. Since a financial assurance bond or letter of credit premium is a percentage of the total amount (*e.g.*, 1-5 percent), lessees and grant holders would pay only a portion of this difference.

[26] Given lease-by-lease variability in financial assurance structure, as well as the small magnitude of the estimated impacts (in terms of costs or cost savings), these results are not included in the total cost savings in table 1.

[27] A lessee accrues additional obligations when project construction starts on the OCS following verification of facility design and fabrication by a certified verification agent. Under both the 2009 rule and this rule, a lessee must provide supplemental financial assurance before beginning construction to cover decommissioning obligations.

commercial lease (*i.e.*, off-lease). This change will result in the USACE potentially being the sole permitting authority for off-lease met devices and on-lease met buoys; BOEM will retain concurrent authority over on-lease met towers.

BOEM has determined the 2009 subpart F regulations governing deployment of met buoys for site assessment activities, both on- and off-lease, are unnecessary for two key reasons. First, those SAP requirements were excessive compared to the minimal environmental impact of a met buoy, which is now the standard device used by industry for site assessments. Second, the USACE typically requires permits for met buoys under its Rivers and Harbors Act section 10 authority. The two permitting regimes were duplicative.

Site assessment data gathered through met buoys help lessees design their OCS wind turbine arrays and calculate the electrical generation and revenue potential for the lease area. When the OCS renewable energy regulations were promulgated in 2009, the industry standard for site assessment was fixed-bottom met towers that were pile-driven into the seabed. Since 2009, the OCS wind energy industry has transitioned to the use of less expensive and less environmentally impactful met buoys that are typically anchored to the seabed by one or more heavy weights and chains. These buoys measure wind speed at varying heights using laser-based technology and typically contain other instrumentation to measure oceanographic conditions. BOEM is eliminating the SAP requirements for met buoys, which generally are permitted by the USACE under the Rivers and Harbors Act. BOEM will, however, retain the SAP requirements, including the requirement for BOEM's prior approval before a lessee can install a met tower on the OCS under a commercial lease due to the higher level of environmental impact associated with pile-driving activities.

BOEM estimates that this regulatory change will allow lessees to deploy met buoys in substantially less time and at a reduced cost because lessees no longer need to prepare an SAP for BOEM's review and approval. Instead, lessees need only to apply for and receive a USACE permit authorizing deployment of a typical met buoy, which lessees presently must do in addition to BOEM's 2009 SAP requirements. BOEM believes the USACE permitting process adequately ensures that site assessment activities are conducted in a safe and environmentally responsible manner.[28]

For the 20-year period of analysis under the regulatory baseline, BOEM estimates that it would receive one met buoy SAP per year on average. The changes to the SAP regulations are not expected to alter the estimated project activity levels. The regulatory changes, however, will result in cost savings through the elimination of the SAP submission. As discussed in section II.D, BOEM estimated the cost of preparing a met buoy SAP application at approximately $1.096 million. The cost savings associated with eliminating the met buoy SAP requirement are presented below in Table 6. In total, the net present value of eliminating SAPs provides an estimated present value cost savings of $11.6 million (7 percent discounting) or $16.3 million (3 percent discounting) over 20 years. BOEM does not anticipate any lessee will use a met tower for site assessment given the greater monetary and time costs compared to using a met buoy.

[28] The USACE is required to exercise the same due diligence as BOEM under the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), the Endangered Species Act (ESA), and other environmental consultation statutes. These federal laws apply equally to BOEM and the USACE.

*Table 6: 20-Year Compliance Cost Associated with Site Assessment Plan Revisions (2024-2043)*

| Year | Undiscounted | Discounted at 3% | Discounted at 7% |
|---|---|---|---|
| 2024 | -$1,096,000 | -$1,064,078 | -$1,024,299 |
| 2025 | -$1,096,000 | -$1,033,085 | -$957,289 |
| 2026 | -$1,096,000 | -$1,002,995 | -$894,662 |
| 2027 | -$1,096,000 | -$973,782 | -$836,133 |
| 2028 | -$1,096,000 | -$945,419 | -$781,433 |
| 2029 | -$1,096,000 | -$917,883 | -$730,311 |
| 2030 | -$1,096,000 | -$891,148 | -$682,534 |
| 2031 | -$1,096,000 | -$865,193 | -$637,882 |
| 2032 | -$1,096,000 | -$839,993 | -$596,151 |
| 2033 | -$1,096,000 | -$815,527 | -$557,151 |
| 2034 | -$1,096,000 | -$791,774 | -$520,702 |
| 2035 | -$1,096,000 | -$768,712 | -$486,637 |
| 2036 | -$1,096,000 | -$746,323 | -$454,801 |
| 2037 | -$1,096,000 | -$724,585 | -$425,048 |
| 2038 | -$1,096,000 | -$703,481 | -$397,241 |
| 2039 | -$1,096,000 | -$682,991 | -$371,253 |
| 2040 | -$1,096,000 | -$663,098 | -$346,966 |
| 2041 | -$1,096,000 | -$643,784 | -$324,267 |
| 2042 | -$1,096,000 | -$625,033 | -$303,053 |
| 2043 | -$1,096,000 | -$606,829 | -$283,227 |
| **Total Cost Savings** | | **-$16,305,712** | **-$11,611,040** |
| **Annualized Cost Savings** | | **-$1,096,000** | **-$1,096,000** |

Note: The negative figures represent total cost savings of the changes.

BOEM notes that this regulatory change may result in second-order cost savings, though this is speculative and, therefore, not quantified in this analysis. Wind resource data collected by met buoys are essential to obtaining project financing and designing a facility. If a lessee can deploy a met buoy 6 to 12 months sooner under this rule than under the 2009 regulations, that could shift the project design and financing process to an earlier date, resulting in additional time savings to BOEM lessees. These savings, if any, are highly variable and significantly dependent on the structure of the project and the lessee and its development partners. BOEM also anticipates that under the rule, a lessee would no longer need a Clean Air Act (CAA) permit from the U.S. Environmental Protection Agency for on-lease met buoys.[29] Because these cost savings would result from not having to comply with a requirement of another Federal agency, BOEM is not quantifying them in this RIA.

[29] In addition to preparation costs, U.S. Environmental Protection Agency air quality permits have an application cost of approximately $2,500. Depending on the State, an entity wishing to deploy a buoy offshore may have other administrative approval costs.

**Off-lease met buoys**

The 2009 Renewable Energy Rule allowed BOEM to issue limited leases to entities that may want to measure the wind resource and ocean conditions in an OCS area that has not been or is not scheduled to be leased for renewable energy development.

This rule would clarify that site assessment facilities deployed outside a commercial lease area do not require a BOEM-issued limited lease. With this change, BOEM would end its current policy of making case-by-case determinations regarding whether off-lease site assessment activities require a limited lease. BOEM no longer interprets off-lease site assessment activities to "support production… of energy" under 43 U.S.C. § 1337(p)(1)(C) because the causal chain is too attenuated and uncertain. The entity conducting off-lease site assessment may decide not to proceed with an energy project for any number of reasons and, even if it decided to proceed, it may not be successful in obtaining a lease from BOEM.[30] Off-lease site assessment facilities still would generally require a permit from the USACE; a CAA permit would not be required.

As with its other change to the SAP regulations, BOEM believes this change would substantially decrease the time and expense required to obtain authorization to deploy an OCS off-lease site assessment facility. Due to the current rarity of off-lease site assessment activities, BOEM has not estimated any potential cost savings for this change. However, BOEM anticipates that more developers, research institutions, and governmental entities may be interested in collecting OCS wind resource data using met buoys or towers with this change.

## III.C Geotechnical COP Investigation Requirements (§ 585.626)

Geotechnical investigations are a costly requirement. BOEM's 2009 regulations required that a lessee include precise geotechnical investigation data from each proposed wind turbine location in its COP submittal. However, a lessee often can identify only preliminary turbine locations at the time of COP submittal. Without these revisions, a lessee may be required to repeat these expensive investigations if a turbine is relocated during the COP review. Multiple lessees have requested deferral of this requirement until after COP approval.

The results of geotechnical boring investigations are currently required to be included with the COP submittal. The rule would allow submission of those results with the facility design report (FDR) and fabrication and installation report (FIR) (both of which are submitted at a later stage after COP submittal) to allow a lessee more time to complete the required investigations. BOEM recognized that its detailed geotechnical investigation requirements were premature and overly prescriptive. With this rule, BOEM will allow lessees flexibility in timing some of their geotechnical investigations by aligning submission of the results with the FDR and FIR. Because the turbine foundation type may alter the exact geotechnical data required, BOEM believes it is sensible to defer this data submission until after COP submittal when project details—like foundation type—are confirmed, thereby minimizing repetition of the geotechnical work.

[30] In contrast, site assessment activities conducted on a commercial lease are not subject to the same jurisdictional analysis. BOEM may determine by regulation which on-lease activities do and do not require a separate BOEM approval.

The 2009 Renewable Energy Rule also requires a geotechnical core analysis for each individual turbine location. This rule would allow a lessee to sample the project area's geotechnical characteristics. If a lessee can demonstrate that the project area consists of generally uniform, predictable, and appropriate geophysical characteristics, a lessee could potentially reduce the number of required geotechnical borings, subject to BOEM approval, and realize cost savings.

BOEM estimates the average cost of a geotechnical investigation of $200,000 per turbine location. This estimate reflects an average of deep borings and shallower probes (*e.g.*, CPTs). Deep borings are estimated to cost approximately $250,000 to $400,000 and represent 20 percent of geotechnical investigation work. The remaining 80 percent are CPTs, ranging in cost from $120,000 to $200,000.

For this analysis, BOEM assumes that lessees can defer the geotechnical work by 2 years. This deferral results in time value of money savings to lessees, who also would have more flexibility (as described below). For example, if the cost of a site investigation is $200,000 today, the present value cost of the same investigation 2 years later is $174,688 (7 percent discounting).

By eliminating the mandatory requirement for a core analysis at each turbine location, BOEM estimates a 10 percent reduction in the number of geotechnical investigations needed. Applying these changes to the baseline activity scenario, BOEM estimates that the geotechnical investigation revisions would save lessees approximately $215 million over 20 years, equating to $20.3 million in annualized savings (Table 7, 7 percent discounting).

These revisions represent a deferral of the requirements, and the information would still be provided prior to construction approval. In instances where a lessee petitions for a reduction in geotechnical investigations, they would have to justify to BOEM why they are unnecessary and therefore BOEM does not estimate an impact to these revisions other than the cost savings.

*Table 7: 20-Year Compliance Cost Associated with Geotechnical Revisions (2024-2043)*

| Year | Undiscounted | Discounted at 3% | Discounted at 7% |
|---|---|---|---|
| 2024 | -$10,258,852 | -$9,960,051 | -$9,587,712 |
| 2025 | -$15,453,044 | -$14,565,976 | -$13,497,287 |
| 2026 | -$20,647,236 | -$18,895,145 | -$16,854,295 |
| 2027 | -$17,745,742 | -$15,766,862 | -$13,538,142 |
| 2028 | -$25,647,131 | -$22,123,440 | -$18,286,050 |
| 2029 | -$22,963,249 | -$19,231,360 | -$15,301,383 |
| 2030 | -$31,854,255 | -$25,900,424 | -$19,837,229 |
| 2031 | -$43,708,928 | -$34,504,232 | -$25,438,994 |
| 2032 | -$30,051,184 | -$23,031,730 | -$16,345,853 |
| 2033 | -$36,527,732 | -$27,180,063 | -$18,568,847 |
| 2034 | -$22,344,091 | -$16,141,847 | -$10,615,517 |
| 2035 | -$13,600,751 | -$9,539,293 | -$6,038,896 |
| 2036 | -$11,657,787 | -$7,938,385 | -$4,837,567 |
| 2037 | -$11,657,787 | -$7,707,170 | -$4,521,091 |
| 2038 | -$11,657,787 | -$7,482,690 | -$4,225,318 |
| 2039 | -$11,657,787 | -$7,264,747 | -$3,948,896 |
| 2040 | -$11,657,787 | -$7,053,153 | -$3,690,557 |
| 2041 | -$11,657,787 | -$6,847,721 | -$3,449,118 |
| 2042 | -$11,657,787 | -$6,648,273 | -$3,223,475 |
| 2043 | -$11,657,787 | -$6,454,634 | -$3,012,594 |
| **Total Cost Savings** | | -$294,237,196 | -$214,818,819 |
| **Annualized Cost Savings** | | -$19,777,361 | -$20,277,377 |

Note: The negative figures represent total cost savings of the changes.

The geotechnical amendments also may provide other important benefits that are difficult to quantify. In allowing a phased approach to geotechnical investigations, lessees might benefit from increased flexibility (*e.g.*, minimize potential conflict with existing stakeholders) and improved project management planning that results in a more optimal project design. For example, under the 2009 regulations, the results of geotechnical investigations are all due at the COP approval stage. However, lessees may still have to conduct additional geotechnical investigations to satisfy FDR and FIR requirements. Under that circumstance, lessees would incur an increased mobilization cost of vessels and geotechnical equipment. If geotechnical work is delayed until FDR and FIR submittals under this rule, additional cost savings due to avoided or reduced geotechnical investigations and their associated environmental impacts may be realized beyond the savings estimated in Table 7.

## III.D Safety Management System and Inspection Updates (§§ 285.810-285.824)

A safety management system (SMS) is a combination of policies, procedures, and control mechanisms an organization develops and implements to achieve its safety objectives. Subpart H of BOEM's 2009 regulations required lessees and grant holders to have a functioning SMS and to provide a description of it to BOEM for all COP-approved renewable energy facilities and activities, as well as for SAP- and General Activities Plan (GAP)-approved facilities and activities that BOEM deemed to be complex and significant. The changes to the SMS requirements in Subpart H clarify acceptable SMS standards and require that all activities associated with a renewable energy lease or grant must be covered by an SMS.

The 2009 rule required a lessee to conduct its operations safely and to provide BOEM a description of its SMS, usually at the COP stage. The changes to § 285.810 clarify that a lessee must use an SMS when conducting any activity pursuant to a lease and specify the contents of an SMS, whether or not it is submitted to BSEE. This clarifies that an SMS is required when activities begin, even prior to COP approval. The responsibility to conduct safe operations is already required in § 285.105(a). Currently this requirement is not explicit until COP approval. These changes help clarify BSEE requirements to ensure safe operations for activities that take place prior to COP approval. The rule continues to require lessees to submit their SMS to BSEE with their COP and for SAP- and GAP-approved facilities and activities that BSEE deems to be complex and significant. The SMS contents are consistent with industry standard safety practices and with the guidance BOEM and BSEE currently provides lessees and grant holders. Therefore, BSEE does not expect these SMS changes to increase the burden on lessees and grant holders. Clear and comprehensive safety management is always required to ensure the safe and efficient operations mandated by OCSLA, which benefit lessees, grant holders, DOI, and the public.

The changes in § 285.811 allow lessees and grant holders to seek third-party SMS certification from a recognized accreditation organization. Third-party certifications could provide relief from frequent BSEE safety inspections and onsite assessments of the SMS. BSEE can request the certification report from the accredited organization in lieu of requiring additional audits. There are no incremental compliance costs associated with the changes to § 285.810 and § 285.811.

The changes to § 285.812 require lessees and grant holders engaging in OCS renewable energy construction or operations to provide BSEE an annual summary of safety performance data for the prior calendar year and, at least once every 3 years or at BSEE's request, the results of the most recent SMS audit and associated corrective actions. These two reporting requirements are estimated to result in an additional 119.5 burden hours per year for each project. Table 8 displays the additional compliance cost for this change. Over 20 years, the increased compliance cost in present value terms is estimated to be about $3.7 million, or $0.35 million annualized (7 percent discounting).

The changes to §§ 285.820-285.824 provide minor technical corrections and clarifications regarding the conduct of, and recordkeeping arising from, BSEE inspections and lessee self-inspections of OCS facilities installed under 30 CFR part 285. BSEE does not expect these changes to result in an increase in lessee reporting and recordkeeping requirements.

OCSLA and the 2009 Renewable Energy Rule require periodic reviews and inspections of OCS facilities, and such inspections may place certain logistical, cost, and operational burdens on lessees and grant holders. This rulemaking is keeping the same intent as the previous rulemaking but is accomplishing it in a different way.

Since these are unmanned platforms, there is additional risk in having people on the platforms for the sole purpose of inspections. The regulations have been revised to allow lessees to conduct inspections via remote technology and/or when they are at the facility for other reasons, thus minimizing the number of trips to the facilities. This will also allow BSEE to take a risk-based approach, focusing on higher risk facilities.

Self-inspections afford flexibility to coordinate facility and equipment inspections in harmony with regularly scheduled maintenance or other operational downtime. Due to the logistical and scheduling flexibility for facility reviews and inspections, BSEE anticipates that coordinating inspections with required regular maintenance will not create additional burden for lessees or grant holders. Additionally, BSEE expects the safety and self-inspection recordkeeping requirements are consistent with SMS and industry recordkeeping practices. Though BSEE reserves the discretion to request records and conduct inspections at any time under the 2009 regulations, both the lessee and BSEE may benefit by increased efficiency and effectiveness to the extent that lessee self-inspections prove sufficient to ensure safe operations and, thus, to alleviate BSEE's need to inspect.

*Table 8: 20-Year Compliance Cost Associated with SMS Reporting (2024-2043)*

| Year | Undiscounted | Discounted at 3% | Discounted at 7% |
|---|---|---|---|
| 2024 | $195,741 | $190,040 | $182,936 |
| 2025 | $206,616 | $194,755 | $180,466 |
| 2026 | $239,239 | $218,938 | $195,290 |
| 2027 | $250,114 | $222,223 | $190,810 |
| 2028 | $250,114 | $215,750 | $178,327 |
| 2029 | $326,235 | $273,217 | $217,384 |
| 2030 | $380,608 | $309,469 | $237,023 |
| 2031 | $402,357 | $317,624 | $234,175 |
| 2032 | $424,106 | $325,042 | $230,685 |
| 2033 | $434,980 | $323,666 | $221,122 |
| 2034 | $434,980 | $314,239 | $206,656 |
| 2035 | $445,855 | $312,713 | $197,965 |
| 2036 | $445,855 | $303,605 | $185,014 |
| 2037 | $456,729 | $301,952 | $177,127 |
| 2038 | $456,729 | $293,157 | $165,540 |
| 2039 | $467,604 | $291,395 | $158,393 |
| 2040 | $467,604 | $282,908 | $148,031 |
| 2041 | $478,478 | $281,055 | $141,564 |
| 2042 | $478,478 | $272,869 | $132,303 |
| 2043 | $489,353 | $270,943 | $126,458 |
| **Total Compliance Cost** | | $5,515,558 | $3,707,271 |
| **Annualized Compliance Cost** | | $370,732 | $349,940 |

## III.E Other Clarifying Revisions

This section describes the elements of the rule that were not quantified and monetized for this analysis. Each of the significant additional regulatory changes is discussed qualitatively below.

**Certified Verification Agent (CVA) Changes (§§ 285.705-285.714)**
The purpose of BSEE's CVA regulations is to ensure that each renewable energy project is designed, fabricated, and installed to withstand the environmental and functional load conditions appropriate for the project's intended service life. To better accomplish this objective and bring the regulations in line with current industry practices, BSEE is making important changes to its CVA requirements.

The rule addresses the substantial, unnecessary risk imposed on industry by the 2009 CVA regulations. CVAs report directly to BSEE and conduct independent assessments of a lessee's or grant holder's design, fabrication, and installation activities. The 2009 regulations required CVAs to "certify" projects. CVAs have indicated that the "certify" standard imposes increased legal and liability risks on them, which, in many cases, they are unwilling to assume. To reduce confusion and ambiguity, the final rule clarifies BSEE's expectations for CVA "verification" and "certification" that are practical and consistent with the policy goals of promoting safety.

BSEE acknowledges that greater flexibility is necessary in the CVA nominating process. The 2009 regulations permitted only one CVA per project. CVAs are nominated as part of a SAP, COP, or GAP submission as applicable, and BOEM approves or disapproves the nomination as part of its plan review. However, value exists by engaging specialized CVAs with expertise in individual systems of a project while preparing plans for BSEE review and approval. Under the 2009 regulations, lessees and grant holders are unable to leverage CVA expertise during plan development. BSEE is decoupling CVA nominations and approvals from plan submittal and review and allowing specialized CVAs for different systems or stages of a project.

This rule will provide lessees and grant holders greater flexibility in meeting project verification requirements. The rule allows a lessee or grant holder to use different CVAs for different BSEE requirements (*e.g.*, a lessee may use a different CVA for the FDR than it uses for the FIR). CVA firms have different levels of experience and expertise; one CVA may be more appropriate for reviewing a FDR or FIR whereas another CVA may be more appropriate for reviewing another report. Furthermore, the rule explicitly would allow separate FDRs and FIRs for major project components if a CVA verifies the satisfactory integration of the constituent components. This approach balances flexibility to review discrete project components in a timely manner with the risk that separately designed, fabricated, and installed components would be disjointed and uncoordinated. The rule also provides clarity regarding what activities constitute "fabrication" and, therefore, cannot commence until BSEE is deemed to have no objections to the FIR or until BSEE's objections, if any, have been resolved.

These changes are important to the continued development of the OCS renewable energy industry. The changes will reduce the potential CVA legal risk when reviewing OCS renewable energy projects while ensuring appropriate engineering and safety standards. The changes also increase lessee and grant holder flexibility in selecting CVAs, allows leveraging CVA expertise at the appropriate developmental stage, and permits separate FDRs and FIRs by major project component. Together, these changes

recognize the importance of flexibility and timing. While no direct cost savings or benefits are expected for these provisions, BSEE expects these changes to reduce project risk and uncertainty in permitting timelines.

**Lease Term/Period Changes (§ 585.235)**

BOEM is revising the terminology and organization of its commercial and limited leases. The changes provide a new lease structure with four periods: (1) preliminary period, (2) COP review period, (3) design and construction period, and (4) operations period. These changes are designed to incorporate lessons learned and advancements in technology since the 2009 regulations, which included a site assessment term and a 25-year operations term that could start years before commercial operations commence, effectively reducing the period of project energy and revenue production. BOEM's lease structure would phase the lease periods more appropriately and ultimately give the operator additional time for developing and constructing the project in addition to a longer operations period. Site assessment, site characterization, and COP development would be gathered in one 5-year preliminary period. The COP review period would begin when BOEM receives a COP and would end upon BOEM's decision on whether to approve, approve with modifications, or disapprove the COP. Upon COP approval, the design and construction period would begin and would extend to the start of the operations period. During this period, the lessee submits its FDRs and FIRs and constructs its project. Finally, the final rule ties the start of the operations period to the completion of construction and installation when the final reports and records for the project are submitted.

The changes to the lease structure more effectively align with the required timeframes for analyzing a site, proposing a design, and constructing an OCS renewable energy project and, therefore, provide clarity, certainty, and flexibility to lessees. BOEM anticipates the revisions will remedy past confusion surrounding lessee's rights to access and develop the lease site throughout the term of the lease. These changes provide a more streamlined permitting approach, increase certainty, better align the phasing of activities during the lease, and contribute to prolonged and productive offshore renewable energy operations. Potential lessees would consider the additional value from the longer lease period in formulating their auction strategy and will be required to pay rent during the longer pre-operations periods.

**Renewable Energy Auction Procedures (§ 585 subpart C)**

The changes will strengthen BOEM's renewable energy auction regulations based on the lessons learned during twelve completed auctions. This rule: (1) reorganizes, simplifies, and clarifies BOEM's pre- and post-auction procedures; (2) outlines auction processes and requirements; (3) encourages a provisional winner to fulfill its obligations; and (4) clarifies[31] what BOEM may do in the event that a provisional winner fails to meet its obligations or when an existing lease is relinquished, contracted, or cancelled.

***Pre- and Post-Auction Procedures***

The rule reorganizes, simplifies, and clarifies pre-auction procedures by merging §§ 585.210-585.211 and §§ 585.213-585.214, detailing each step leading to an auction, and eliminating the term "request for interest" in favor of an expanded usage of the term "request for information." The rule simplifies

[31] An auction winner is considered provisional until the lease is executed. During this interim period the Department of Justice conducts a 30-day antitrust review in consultation with the Federal Trade Commission upon completion of which the provisional winner must pay its final bid balance, provide requisite financial assurance, and accept the terms and conditions of the lease.

and clarifies post-auction procedures by outlining what BOEM and a provisional winner must do between the auction and lease execution. The rule also consolidates the appeal provisions currently contained in § 585.118 and § 585.225 into a single section, § 585.118. The rule retains separate processes for appealing a decision determining the outcome of an auction and for appealing all other final orders or decisions under 30 CFR part 585.

The rule changes the due date for payment of the first 12 months' rent to 45 calendar days after the winning bidder receives a copy of the executed lease from BOEM. Under the 2009 regulations, payment is due 45 days after the provisional winner's receipt of three copies of the unexecuted lease.

***Auction Processes and Rules***

This rule simplifies the regulations concerning the auction process and clarifies rules that are applicable to all renewable energy auctions. The rule replaces the enumerated auction formats, bid systems, and bid variables in the 2009 regulations with a more flexible structure designed to better accommodate an emerging industry. BOEM has previously conducted multiple-factor auctions, awarding monetary credits based on non-monetary factors (*e.g.*, an existing power purchase agreement). The rule clarifies that, consistent with previous practice, BOEM may offer bidding credits, *i.e.*, monetary credits awarded by BOEM to bidders who meet certain eligibility criteria. The rule states that the eligibility criteria are to be defined in the FSN prior to an auction and outlines how BOEM will implement future multiple-factor auctions using bidding credits. The rule eliminates the requirement for any specific auction format and instead allows any format that is objective, fair, reasonable, and competitive; awards leases to the highest bidder; and provides a fair return to the United States.[32] It also outlines the process BOEM will use to disqualify bidders who no longer meet qualification requirements or who engage in specified improper conduct, as well as the process for bidders to re-qualify.

The changes to the auction regulations at §§ 585.220-585.222 allow for greater flexibility and predictability in designing and conducting renewable energy auctions. For example, these changes allow BOEM to adopt new state-of-the-practice auction formats that could optimize results for the industry and the public. In the unlikely event of a bidder default, BOEM can respond accordingly by timely reoffering the affected lease area.

BOEM's renewable auctions are generally similar in nature, however particular characteristics of the auction may vary (*e.g.*, the use of bidding credits and the necessary qualifications to earn them, the number of offered lease areas, bidding limitations, etc.) BOEM's current practice prior to every sale includes an auction seminar at the proposed sale stage, and a mock auction at the final sale stage to ensure the participants are familiar and prepared with the specific auction procedures and processes. For these reasons, BOEM does not anticipate any compliance cost or cost savings for these provisions.

[32] The Revenue Equivalence Theorem is an auction theory, which states that under certain conditions, one can expect identical revenues from all "standard" auction designs. Therefore, the specific auction format and bid variables should have no, or a very limited, effect on the outcome. See PAUL MILGROM, PUTTING AUCTION THEORY TO WORK (2004).

***Provisional Winner Obligations***

The rule provides additional incentives to encourage provisional winners to fulfill their obligations to sign the lease agreement, provide requisite financial assurance, and pay the outstanding bid balance. The rule outlines a list of actions that BOEM might take, after a factual review of the circumstances, if a provisional winner fails to meet its obligations.

***Lease Reallocation***

This rule outlines the procedures that BOEM would use to resolve lease uncertainty in two situations: (1) when a provisional winner fails to fulfill its obligations prior to lease execution or is otherwise unable to execute a lease and BOEM offers the lease to the next highest bidder, and (2) when an existing lease is relinquished, contracted, or cancelled as discussed in existing §§ 585.435-585.437. The rule clarifies how BOEM will respond to these situations by outlining a framework for reallocating affected lease areas. The substitution of one lessee for another does not affect baseline activity levels and, therefore, BOEM is not estimating any impact as a result of this framework.

**Civil Penalties (§ 585.400)**

Under this rule, BOEM's civil penalty authorities for renewable energy would be expanded to explicitly include violations that threaten or cause "serious, irreparable, or immediate" harm. This new authority parallels the authority delegated to BSEE to issue civil penalties for such violations under the oil and gas program and exercises the full extent of the authority granted by Congress in OCSLA. This change does not increase or reduce costs. All lessees and grant holders are required to conform to the law, regulations, lease terms, approved plans, and orders.

**Right-of-Way Rent (§ 585.508)**

BOEM is revising the annual rent it charges for ROWs. ROWs are issued for the construction and use of a cableway or pipeline on the OCS for the purpose of gathering, transmitting, distributing, or otherwise transporting renewable energy, such as an electrical grid infrastructure project. ROWs are separate from project easements included under BOEM's renewable energy leases, to which a lessee is entitled for full enjoyment of its lease. BOEM has issued one ROW to support Rhode Island's Block Island wind facility, a project in State waters that required use of the OCS for the electric transmission cable. Under the 2009 regulations, BOEM charged an annual rent for ROWs of $70 per statute mile-corridor (1 mile by 200 ft width), equivalent to approximately $2.89 per acre, and $5 per acre for RUEs and areas used beyond the ROW corridor ($450 minimum). BOEM has determined that no compelling reason supports this differential between $2.89 and $5 in annual rent per acre. To provide flexibility in situations where the desired infrastructure may not lend itself to a per mile rental fee and to seek consistency in the acreage rental pricing, BOEM is removing the $70 per mile rental fee for ROWs and applying the per acre rental fee of $5 to ROWs and RUEs. BOEM recognizes this would cause a small increase in cost for ROWs greater than 3.7 miles in length. However, due to the minor nature and infrequent use of this rental fee, it is too small to be reflected in the top-line estimates of the rule's impact. Also, the rule allows a grant holder to request a narrower ROW corridor than 200 ft, which if approved would reduce the annual rent.

**Other Regulatory Changes**

Other regulatory changes clarify BOEM's authorities, including the authority to grant industry's regulatory departure requests before a lease is issued and after a lease terminates. BOEM also is eliminating the requirement for paper submissions of plans, applications, reports, and other required

documents unless specifically requested. Lastly, this rule makes technical corrections and clarifications to ensure BOEM's regulations are accurate, clear, and consistent. These provisions are considered cost-neutral, though some may result in minor unquantified benefits and cost savings.

### III.F Total Estimated Compliance Cost Savings of the Rule

The total estimated compliance cost savings of the rule are presented in Table 9. These estimated costs savings capture the modernization measures as compared to the baseline of the regulations provided by the 2009 Renewable Energy Rule.

*Table 9: Total Estimated Compliance Cost Savings of the Rule (2024-2043)*

| Year | Undiscounted | Discounted at 3% | Discounted at 7% |
|---|---|---|---|
| 2024 | -$35.49 | -$34.46 | -$33.17 |
| 2025 | -$61.91 | -$58.35 | -$54.07 |
| 2026 | -$96.42 | -$88.24 | -$78.71 |
| 2027 | -$142.22 | -$126.36 | -$108.50 |
| 2028 | -$107.90 | -$93.08 | -$76.93 |
| 2029 | -$175.10 | -$146.64 | -$116.67 |
| 2030 | -$141.10 | -$114.73 | -$87.87 |
| 2031 | -$196.10 | -$154.80 | -$114.13 |
| 2032 | -$310.39 | -$237.89 | -$168.83 |
| 2033 | -$191.55 | -$142.53 | -$97.37 |
| 2034 | -$263.35 | -$190.25 | -$125.11 |
| 2035 | -$161.43 | -$113.22 | -$71.68 |
| 2036 | -$93.82 | -$63.89 | -$38.93 |
| 2037 | -$78.18 | -$51.69 | -$30.32 |
| 2038 | -$78.18 | -$50.18 | -$28.34 |
| 2039 | -$78.17 | -$48.71 | -$26.48 |
| 2040 | -$78.17 | -$47.30 | -$24.75 |
| 2041 | -$78.16 | -$45.91 | -$23.12 |
| 2042 | -$78.16 | -$44.57 | -$21.61 |
| 2043 | -$78.15 | -$43.27 | -$20.20 |
| **Total Cost** | | **-$1,896.07** | **-$1,346.80** |
| **Annualized Cost** | | **-$127.45** | **-$127.13** |

Note: The negative figures represent total cost savings of the changes.

## Section IV. Analysis of Alternatives

In developing this rule, BOEM considered three alternatives: (1) offer a less stringent alternative where appropriate, (2) offer a more stringent alternative where appropriate, and (3) take no regulatory action and rely on the regulations as currently promulgated (continuation of the baseline). The alternatives listed here are not mutually exclusive. BOEM's regulatory changes reflect its experience and input from stakeholders. The changes are designed to streamline future renewable energy development on the OCS

and eliminate unnecessary burdens. BOEM explains below why it did not select these alternatives for the proposed rule.

***Less Stringent Alternative***

**Decommissioning Financial Assurance**: BOEM considered an alternative that would allow all lessees and grant holders to fund decommissioning accounts in 20 percent increments annually for years 16-20 of the operations periods. This prescriptive schedule scenario is less stringent than the baseline, which requires fully funded decommissioning accounts prior to turbine installation, and the proposed rule, which affords BOEM discretion to disapprove incremental funding of decommissioning accounts based on financial and risk considerations. Using a $2.5 million decommissioning cost per turbine, the prescriptive schedule scenario would offer lessees and grant holders an estimated $1,756,950 in time value of money savings per turbine. The total savings of this specific funding scenario is provided in Table 5. While this provides more predictable savings to lessees and grant holders as compared to the proposed rule, a prescriptive schedule would not account for project-specific finances and poses potential costs in the form of variable risk to taxpayers depending on the developer and the project.[33] For this reason, BOEM rejected this alternative. The rule allows BOEM to assess default risk and provide flexibility to lessees, grant holders, and BOEM to agree to a funding schedule that would both offer time value of money savings to lessees and grant holders while adequately protecting the public from risk associated with non-performance of decommissioning obligations. For example, a well-capitalized company with minimal risk of default could receive a more favorable funding schedule (*i.e.*, funding later in the project's timeline) than a fiscally weaker company with a greater risk of default.

**SAP Requirements for Meteorological Measurement**: The rule eliminates the SAP requirement for installing met buoys on a lease. BOEM considered eliminating the SAP requirement for met towers as well, guaranteeing that lessees would realize the estimated $1.096 million in savings per SAP submission regardless of what technology they select for their site assessment activities. While BOEM has approved one lessee's SAP for a met tower, all other lessees have submitted SAPs for met buoys—and BOEM expects the industry to utilize only met buoys for site assessments moving forward. Therefore, BOEM believes this alternative provides no additional savings as compared to the rule. It also should be noted that met towers are traditionally installed with a jacket or other platform technology pile-driven into the seabed and have a greater potential to cause adverse environmental impacts than met buoys. Thus, met towers may require additional study, information, and mitigations to ensure installation impact is minimized. For this reason, BOEM is retaining the SAP requirement for on-lease met towers or other site assessment facilities requiring an engineered foundation. The rule clarifies, however, that BOEM does not have jurisdiction over *off-lease* met towers.

***More Stringent Alternative***

**SAP Requirements for Meteorological Measurement**: BOEM considered several alternatives to the SAP requirement that would be more stringent than the rule but less stringent than the 2009 regulations. First, BOEM considered scaling back certain SAP data requirements in 30 CFR 585.610-585.611 for met buoys. BOEM ultimately decided this alternative provided insufficient benefits. Second, BOEM

[33] Though BOEM did not select this alternative, the economic analysis presented in this discussion is the same used to calculate the compliance costs associated with the decommissioning fund alternative selected by BOEM. *See supra* section III.A.

considered replacing the current SAP requirement with a 30-day notice for site assessment activities analogous to the notice required for ancillary activities on offshore oil and gas leases. *See* 30 CFR 550.208-550.209. BOEM determined that, while this approach could provide cost savings and efficiencies once implemented, these savings and efficiencies would be offset significantly by the added burdens of creating a new regulatory process and harmonizing it with existing programmatic agreements established pursuant to section 106 of the National Historic Preservation Act.

**Geotechnical Investigations**: The fine rule changes provide BOEM and its lessees and grant holders with more flexibility in conducting geotechnical investigations by eliminating the requirement to investigate every turbine location and by allowing some of these investigations to be conducted later in the development timeline after facility locations are more reliably determined.

These two changes are not mutually dependent. An alternative scenario exists where BOEM could afford lessees and grant holders the flexibility and savings from shifting the investigation timing later but keeping the requirement for a boring at every turbine location under 2009 regulations. In this scenario, a lessee or grant holder would realize the time value of money savings of a deferred geological investigation schedule but not the savings attributed to any reduction in the number of investigations required. Table 10 presents the estimated savings of this provision.

*Table 10: Cost Savings of Alternate Geotechnical Investigation Requirements (2024-2043)*

| Year | Undiscounted | Discounted at 3% | Discounted at 7% |
|---|---|---|---|
| 2024 | -$7,952,974 | -$7,721,334 | -$7,432,686 |
| 2025 | -$11,979,669 | -$11,291,987 | -$10,463,507 |
| 2026 | -$16,006,364 | -$14,648,091 | -$13,065,961 |
| 2027 | -$13,757,038 | -$12,222,950 | -$10,495,179 |
| 2028 | -$19,882,435 | -$17,150,763 | -$14,175,901 |
| 2029 | -$17,801,809 | -$14,908,734 | -$11,862,097 |
| 2030 | -$24,694,386 | -$20,078,796 | -$15,378,423 |
| 2031 | -$33,884,489 | -$26,748,729 | -$19,721,081 |
| 2032 | -$23,296,591 | -$17,854,897 | -$12,671,802 |
| 2033 | -$28,317,408 | -$21,070,811 | -$14,395,134 |
| 2034 | -$17,321,818 | -$12,513,650 | -$8,229,471 |
| 2035 | -$10,543,716 | -$7,395,150 | -$4,681,536 |
| 2036 | -$9,037,471 | -$6,154,078 | -$3,750,229 |
| 2037 | -$9,037,471 | -$5,974,833 | -$3,504,887 |
| 2038 | -$9,037,471 | -$5,800,808 | -$3,275,595 |
| 2039 | -$9,037,471 | -$5,631,853 | -$3,061,304 |
| 2040 | -$9,037,471 | -$5,467,818 | -$2,861,032 |
| 2041 | -$9,037,471 | -$5,308,561 | -$2,673,861 |
| 2042 | -$9,037,471 | -$5,153,943 | -$2,498,936 |
| 2043 | -$9,037,471 | -$5,003,828 | -$2,335,454 |
| **Total Cost Savings** | | **-$228,101,616** | **-$166,534,076** |
| **Annualized Cost Savings** | | **-$15,332,011** | **-$15,719,639** |

Note: The negative figures represent total cost savings of the proposed changes.

Rather than keep the prescriptive investigation requirement at each turbine location, however, BOEM is allowing lessees and grant holders to demonstrate to BOEM that fewer geotechnical investigations are sufficient to characterize the underlying geology of the lease area on which turbines and other facilities will be placed. Under the rule, lessees and grant holders still would need to perform detailed geotechnical investigations to inform their geology characterization to ensure the project conforms to engineering and safety standards.

***Alternatives Not Considered***

BOEM did not analyze alternatives for the CVA amendments, the auction regulations, and other changes to the OCS renewable energy regulations. BOEM determined that these provisions do not result in significant or quantifiable savings or costs to bidders, lessees, or grant holders and, therefore, alternatives to these provisions did not merit additional analysis in this RIA. BSEE did not propose alternatives to its proposed safety requirements. OCS lessees must always operate safely and must use an SMS program to do so, and the SMS provisions are consistent with current practice and have been included in all recent terms and conditions for COP approval. Exempting, delaying, modifying, or reducing the safety requirements increases the risk to OCS operations and decreases BSEE's ability to intervene in a timely manner if necessary.

## Section V. Regulatory Flexibility Analysis

The Regulatory Flexibility Act (RFA), 5 U.S.C. §§ 601-612, requires agencies to analyze the economic impact of regulations when there is likely to be a significant economic impact on a substantial number of small entities and to consider regulatory alternatives that will achieve the agency's goals while minimizing the burden on small entities.

### V.A Description of the Reasons Why Action by the Agency Is Being Considered

Section 207, *Renewable Energy on Public Lands and in Offshore Waters*, of E.O. 14008 states the administration's domestic renewable energy goal for offshore wind:

> The Secretary of the Interior shall review siting and permitting processes on public lands and in offshore waters … to increase renewable energy production on those lands and in those waters, with the goal of doubling offshore wind by 2030 while ensuring robust protection for our lands, waters, and biodiversity and creating good jobs.[34]

The Department's renewable energy program has matured over the past 15 years. Through that experience, the Department has identified opportunities to improve its regulations. Those opportunities align with the administration's domestic renewable energy goals by removing obstacles to more efficient and responsible offshore renewable energy.

### V.B Succinct Statement of the Objectives of, and Legal Basis for, the Rule

OCSLA authorizes the Department to issue this rule. The changes facilitate the orderly and expeditious development of renewable energy resources and promote U.S. energy independence. This rule contains reforms identified by the Department and stakeholders, including incremental funding of decommissioning accounts; flexible geotechnical investigation schedules; a simplified met buoy approval process; revised certified verification agent requirements; and a number of other clarifications and improvements to the regulatory framework.

### V.C Description of and, Where Feasible, an Estimate of the Number of Small Entities to which the Rule Would Apply

This rule directly affects all current and future OCS renewable energy lessees and grant holders.

Renewable energy companies operating on the OCS generally are organized under North American Industry Classification System (NAICS) code 221115 Wind Electric Power Generation in sector 22 (Utilities). The size standard for determining a small business in this category is 250 employees or fewer. Some OCS renewable energy companies may be financially supported by investment fund portfolios. The revenue threshold for determining a small Portfolio Management Company, NAICS code 523940, is $41.5 million.

[34] On March 29, 2021, the administration established a deployment target of 30 gigawatts of offshore wind energy by 2030.
https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/

The U.S. Small Business Administration's (SBA) Office of Advocacy provides guidelines for complying with the RFA. The SBA's best practice for understanding impacts to small businesses is to conduct regulatory analysis at the firm level.[35] BOEM's current active commercial OCS renewable energy leases are held by lessees that are subsidiaries of large parent companies or are majority-owned by portfolio management companies. No current lessee fits the definition of a small firm or business.

The results of recent BOEM renewable energy auctions have demonstrated that companies interested in developing OCS wind energy resources (*i.e.*, companies that have submitted bids in BOEM auctions) are all either large firms or partners with large firms in joint ventures. Small companies have participated in previous stages of site acquisition, demonstrating a role in the initial planning and leasing stages. However, to-date, these small companies then leverage the capacity and expertise of large firms to develop and operate OCS wind energy facilities.

To achieve cost-effective energy production, developing and operating OCS wind energy projects requires significant upfront capital typical of large firms or portfolio management companies. Commercial-scale projects cost hundreds of millions to billions of dollars to install and operate. As a result, it is unlikely small entities will be independently constructing or operating OCS wind facilities in the foreseeable future.

Overall, this rule results in net cost savings to industry. The cost savings associated with this rule are available to all companies developing and operating OCS renewable energy facilities. If small companies do participate in the OCS renewable energy industry moving forward, the cost savings from this rule would benefit them accordingly. Therefore, BOEM has determined that the rule would not likely cause a significant economic impact on a substantial number of entities.

BOEM does not expect impacts to the commercial fishing industry due to this rule. BOEM does not consider the potential impacts from this rule on small fisheries or small coastal communities because they are not regulated entities. BOEM does not anticipate that these communities would experience either positive or negative impacts from the regulation above those they would experience under the baseline scenario. Impacts to the fishing industry from offshore wind development are evaluated during BOEM's leasing and approval processes, through the attendant NEPA reviews.

### V.D Description of the Projected Reporting, Recordkeeping, and Other Compliance Requirements of the Rule

The rule adds two new SMS reporting, recordkeeping, or other compliance requirements under § 285.812. One provision requires an annual safety performance summary and the second requires a triannual SMS audit, corrective actions, and changes to the program. Together, the incremental burden for these provisions is estimated at about 119.5 annual burden hours per project by the individual(s) responsible for implementing the lessee's SMS program.

[35] *RFA Guide for Government Agencies* (2017) definition of "firm**"**: a firm, or enterprise, consists of all establishments owned by a "parent" company. An enterprise may own subsidiaries, branches, and unrelated establishments. It is a best practice to conduct regulatory analyses at the firm level in order to fully understand the small business impact.

## V.E Identification of All Relevant Federal Rules That May Duplicate, Overlap, or Conflict with the Rule

The rule would not duplicate, overlap with, or conflict with any relevant Federal rules.

## V.F Description of Significant Alternatives to the Rule

The regulatory alternatives to rule provisions are discussed in Section IV, *Analysis of Alternatives*. BOEM is not exempting or providing differing compliance requirements for small entities. The criteria called for in 5 U.S.C. § 603(c) -- providing for differing compliance or timetable requirements; clarification, consolidation, and simplification of regulatory requirements; and performance over design standards -- are designed to minimize any significant economic impact on small entities. Each of these criteria are included as elements of the rule and are beneficial to all lessees regardless of their size.

BSEE has concluded that there are no significant, viable alternatives to the SMS and SMS reporting requirements that would accomplish the stated objectives of the Renewable Energy Program. Furthermore, the SMS changes reflect requirements that have been included in the terms and conditions of many recent COP approvals, and companies are already in compliance with these new requirements. As evidenced by this rule, one of BSEE's goals for this rule is to minimize the economic impact of its renewable energy program for lessees in as many areas as possible without compromising operational safety or environmental protection. However, the rule does comply with the statutory provision of 5 U.S.C. 603(c)(3) that the rule be written in such a manner so as to use performance rather than design standards. The prevailing performance standard on the OCS is that lessees must always operate safely and must use an SMS program to do so. Exempting, delaying, modifying, or reducing the safety requirements increases the risk to OCS operations and decreases BSEE's ability to intervene in a timely manner if necessary.

## Section VI. Unfunded Mandates Reform Act (UMRA) Analysis

This rule does not impose an unfunded Federal mandate or have a significant or unique effect on State, local, or Tribal governments. Therefore, the rule does not have disproportionate budgetary effects on these governments. BOEM has determined that this rule would not impose costs on the private sector of more than $195 million in a single year.[36] Therefore, the rule does not trigger the requirement to prepare a written statement under UMRA, and BOEM has chosen not to prepare such a written statement.

[36] The private-sector cost threshold established in UMRA in 1996 was $100 million. After adjusting for inflation, the 2023 private-sector threshold is $195 million.

## Section VII. Effects on the Nation's Energy Supply (Executive Order 13211)

Under E.O. 13211, agencies are required to prepare and submit to OMB a Statement of Energy Effects for significant energy actions. This should include a detailed statement of any adverse effects on energy supply, distribution, or use expected to result from the action and a discussion of reasonable alternatives and their effects.

OMB[37] provides guidance for implementing this E.O., outlining the following outcomes that may constitute "a significant adverse effect" arising from the regulatory action under consideration:

1. Reductions in crude oil supply in excess of 10,000 barrels per day;
2. Reductions in fuel production in excess of 4,000 barrels per day;
3. Reductions in coal production in excess of 5 million tons per year;
4. Reductions in natural gas production in excess of 25 million mcf[38] per year;
5. Reductions in electricity production in excess of 1 billion kilowatt-hours per year or in excess of 500 megawatts of installed capacity;
6. Increases in energy use required by the regulatory action that exceed the thresholds above;
7. Increases in the cost of energy production in excess of 1 percent;
8. Increases in the cost of energy distribution in excess of 1 percent; or
9. Other similarly adverse outcomes.

A regulatory action could also have a significant adverse effect if it:

1. Adversely affects in a material way the productivity, competition, or prices in the energy sector;
2. Adversely affects in material way productivity, competition or prices within a region;
3. Creates a serious inconsistency or otherwise interferes with an action taken or planned by another agency regarding energy; or
4. Raises novel legal or policy issues adversely affecting the supply, distribution or use of energy arising out of legal mandates, the President's priorities, or the principles set forth in E.O.s 12866 and 13211.[39]

OIRA has not designated the rule as a significant energy action and the rule does not add any new regulatory compliance requirements that are likely to have a significant adverse effect on the supply, distribution, or use of energy. Rather, in aggregate, the revisions to the Department's regulations set forth in the rule would help streamline development of offshore renewable energy.

As detailed in section III.F, the regulatory changes are expected to provide the offshore renewable energy industry with direct, annualized compliance cost savings of $127 million (7 percent discounting) over the 20-year period of analysis. These savings would reduce the overall costs to OCS renewable

[37] https://obamawhitehouse.archives.gov/omb/memoranda_m01-27
[38] An mcf is 1 thousand standard cubic feet, an accepted unit for measuring natural gas.
[39] OMB, Memorandum for Heads of Executive Department Agencies, and Independent Regulatory Agencies, Guidance for Implementing E.O. 13211, M-01-27 (2001). https://www.whitehouse.gov/wpcontent/uploads/2017/11/2001-M-01-27-Guidance-for-Implementing-E.O.-13211.pdf

energy lessees and grant holders. Reduced regulatory burdens do not adversely affect productivity, competition, or prices within the energy sector. Therefore, a Statement of Energy Effects is not required.