Risk Management, Financial Assurance and Loss Prevention Initial Regulatory Impact Analysis

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PROPOSED RULE

DEPARTMENT OF THE INTERIOR

Bureau of Ocean Energy Management

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Executive Summary

This Initial Regulatory Impact Analysis (IRIA) provides supporting documentation and analysis for the Bureau of Ocean Energy Management (BOEM) portion of the Notice of Proposed Rulemaking, entitled, “Risk Management, Financial Assurance, and Loss Prevention” (RIN 1082-AA02). The proposed rule revises 30 CFR Part 556, Subpart I-Bonding or Other Financial Assurance, pertaining to bonding and other security requirements for leases as well as the corresponding sections of 30 CFR Part 550, Subparts A-General and J-Pipelines and Pipeline Rights-of-Way, pertaining to bonding and other security requirements for right-of-use and easement grants and pipeline right-of-way grants. See the separate IRIA for the Bureau of Safety and Environmental Enforcement (BSEE) portion of the proposed rule.

This proposed rule would create a comprehensive risk management and financial assurance regulatory framework to meet the overall goal of ensuring that U.S. taxpayers do not have to pay for liabilities related to lessees’ and grant holders’ noncompliance with Outer Continental Shelf (OCS) obligations, including the obligation to decommission OCS facilities. The proposed changes reflect an interest in improving the risk mitigation provided by BOEM’s joint and several liability regime, while better aligning the evaluation criteria with banking and finance industry practices, providing greater flexibility for industry, and continuing to protect taxpayers from exposure to financial liabilities associated with OCS exploration and development. The revised regulatory framework would provide BOEM with front-end risk management tools, improve business certainty, and leverage company strengths of OCS lessees and grant holders.

Changes to Federal regulations undergo several types of economic analysis. Executive Orders (E.O.s) 13563 and 12866 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 emphasizes the importance of quantifying both costs and benefits, reducing costs, harmonizing rules, and promoting flexibility. Section 3(f) of E.O. 12866 defines a “significant regulatory action” as any regulatory action that is likely to result in a rule that: (1) has an annual effect on the economy of $100 million or more or adversely affects, in a material way, the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities (also referred to as "economically significant"); (2) creates serious inconsistency or otherwise interferes with an action taken or planned by another agency; (3) materially alters the budgetary impacts of entitlement grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or (4) raises novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the EO.

This proposed rule does not constitute an economically significant regulatory action under Section 3(f)(1) of E.O. 12866, because the rule is not expected to impose an effect of $100 million or more in any given year. However, the Office of Information and Regulatory Affairs in the Office of Management and Budget has reviewed the proposed rule and determined that it is significant under other criteria provided for in section 3(f).

Need for Regulatory Action

BOEM is proposing this rulemaking to clarify and streamline its financial assurance requirements with the ultimate goal of providing regulatory changes that will continue to protect taxpayers while providing additional flexibility for, and reducing burdens on, OCS operators. The proposed regulatory changes will permit BOEM to more effectively address a number of complex legal and financial issues (e.g., joint and several liability and economic viability of offshore assets) associated with decommissioning liability on the OCS. Under the proposed action, BOEM will identify and evaluate the financial strength of OCS lessees and grant holders that could affect their ability to meet OCS obligations. This IRIA analyzes the economic impacts of BOEM's portion of this proposed rule.

Baseline

BOEM's current financial assurance framework is the baseline analyzed in this IRIA. This baseline includes the partial implementation of Notice to Lessees (NTL) No. 2016-N01 and the February 17, 2017 withdrawal of Sole-Liability Orders issued for lower-risk companies. This baseline most closely represents the actual costs of sole-liability implementation and the evaluation of transactions requiring bonding that have occurred during the NTL's partial implementation.

Potential Cost Savings of the Proposed Rule

Table 1 presents the estimated annualized and total cost savings for the proposed rule. Over the twenty-year period beginning in 2019[1], BOEM anticipates industry will incur net cost savings of $256 million discounted at 3%, or $180 million discounted at 7%. The ten-year cost savings are also provided.

Table 1 Total Estimated Cost Savings of the Proposed Rule (2019-2038, 2018$)

2019-2038	Discounted at 3%	Discounted at 7%
10 Year Annualized	$16,584,362	$16,473,168
10 Year Net Present Value (NPV)	$141,467,969	$115,700,639
20 Year Annualized	$17,191,929	$16,988,417
20 Year NPV	$255,772,485	$179,975,527

Potential Public Impacts

BOEM designed the proposed rule to minimize the amount of bonding required for financially strong companies, while at the same time protecting the taxpayer from assuming responsibility for defaulted decommissioning liabilities. The proposed approach considers that, when there are multiple liable companies (i.e., companies in the chain of title) that are jointly and severally liable for lease and grant liabilities, the risk that the public will need to assume the decommissioning liabilities is lower. Under the proposed action, BOEM would reevaluate the financial health of companies responsible for decommissioning liabilities annually and more often if the company's credit rating changes or if BOEM receives other information regarding a deterioration of the company's financial standing.

[1] Decommissioning levels, facility ownership, and credit ratings can change independent of BOEM regulations at any time. This analysis was originally conducted on a comprehensive, but ultimately static, estimate of these values in 2018. BOEM believes the 2018 data is suitable and the analysis remains a reasonable estimate of this proposed rule's potential impact. The time horizon will be adjusted for the final rule.

OMB Circular A-4 Accounting Statement

Category	Primary Estimate		Minimum Estimate	Maximum Estimate	Source Citation
IMPACT on OCS Environmental Protection and Economic Development ($ millions)					
Annualized monetized benefits (discount rate in parentheses)	N/A	N/A	N/A	N/A	RIA
Unquantified benefits	This proposed rule is designed to minimize the amount of bonding required for financially strong companies while protecting the taxpayer from assuming responsibility for defaulted decommissioning liabilities.				RIA
NET COST SAVINGS ($ millions)					
20-year annualized monetized costs (discount rate in parentheses)	(7%)	-$16,988,417	N/A	N/A	RIA - Table 1 (20 year)
	(3%)	-$17,191,929	N/A	N/A	
Annualized quantified, but unmonetized, costs	0		0	0	RIA
Qualitative costs (unquantified)	N/A				RIA
TRANSFERS	0				RIA
Annualized monetized transfers: “on budget”	0		0	0	RIA
Annualized monetized transfers: “off budget”	0		0	0	RIA
From whom to whom?	Potential transfer of decommissioning liabilities from financially weaker companies to companies with stronger balance sheets.				RIA
Effects on State, local, and/or tribal governments	No material adverse effects.				RIA E.O. 12866
Effects on small businesses	Est. $3.3 million in 2018 cost savings.				IRFA (Section VIII)
Effects on wages	None				None
Effects on growth	The proposed rule does not add new regulatory requirements that would lead to adverse effects on the nation’s energy supply, distribution or use.				E.O. 13211 (Section X)

I. Introduction

BOEM’s goal for its financial assurance program is to protect the public from exposure to private financial obligations associated with OCS exploration and development, while ensuring that offshore oil and gas investment and exploration and development are not negatively affected. BOEM has administered the bonding program under the regulations issued in 1997. Since that time, BOEM has issued Notices to Lessees (NTLs) as guidance documents to clarify the bonding and information requirements for additional security so that it can ensure that lessees and grant holders meet their OCS obligations, particularly for decommissioning. In the past several years, BOEM has engaged in public outreach and found stakeholder support for policy changes that would protect the taxpayer and reduce the economic burden for lessees and grant holders, particularly during times of low oil prices.

BOEM believes the proposed regulatory changes would address a number of legal and financial issues (e.g., joint and several liability, and economic viability of offshore assets) associated with decommissioning liability on the OCS. This initial regulatory impact analysis (IRIA) is intended to critically assess the positive and negative effects of the proposed action and regulatory alternatives.

Background

Lessees and grant holders are required to decommission their OCS facilities. Decommissioning existing and future OCS oil and gas facilities requires a large financial expenditure, which does not yield a net return for asset owners. One of the most challenging issues faced by the Department of the Interior (Interior) and offshore operators is covering the high-dollar financial liabilities associated with decommissioning OCS facilities. Estimated current decommissioning liabilities for existing OCS facilities are approximately $32.8 billion. Under BOEM regulations and those of the Bureau of Safety and Environmental Enforcement ("BSEE"), the liability of lessees, and pipeline right-of-way grant holders is "joint and several" with other holders of such leases (including sublessees) or grants. Each current lessee or grant holder, and its assignees, remain liable for all decommissioning obligations that accrued prior to, and during its ownership until each obligation is met.

The policy and practice of the Minerals Management Service ("MMS"), the Bureau of Ocean Energy Management, Regulation and Enforcement, and now BOEM, has been to evaluate the ability of lessees and grant holders to carry out present and future obligations when determining whether to require additional financial assurance. The existing lease bonding regulations at 30 CFR 556.901(d), provide five criteria the agency uses to determine a lessee's ability to carry out present and future obligations. However, these regulations do not specifically describe how those criteria are applied. To provide effective guidance MMS issued a Leasing Activities Information document dated October 22, 1993. Later, MMS issued Notice to Lessees (NTL) No. 1998-18N, effective December 28, 1998, to provide details on how MMS would apply these regulations. This NTL was replaced by NTL No. 2003-N06, effective June 17, 2003, and then NTL No. 2008-N07, effective August 28, 2008.

In 2009, MMS issued a proposed rule to re-write the entirety of Part 256 (re-designated as Part 556), which included the bonding regulations. However, BOEM deferred revision of the bonding regulations for a separate rulemaking because of the complexity and potential impacts associated with revising these regulations. This separate bonding rulemaking commenced August 19, 2014, with an advance notice of proposed rulemaking (79 FR 49027) to solicit ideas from the public for improving the bonding regulations, assessing and mitigating risk, and determining types and levels of financial assurance.

Following further bureau analysis, and a series of stakeholder meetings in 2015 and 2016 to solicit industry input, BOEM issued NTL No. 2016-N01, *Requiring Additional Security*, effective September 12, 2016, which sought to clarify the procedures and application of the criteria BOEM would use to determine if, and when, additional security may be required for OCS leases, right-of-use and easement grants and pipeline right-of-way grants. NTL No. 2016-N01 detailed several changes in policy. For example, it ended the policy that automatically allowed an OCS lessee or grant holder to be exempt from providing additional security under 30 CFR 556.901(d) if BOEM determined that one or more co-lessees or co-grant holders had sufficient financial strength and reliability to cover the lease's or grant's decommissioning obligations. The NTL also refined BOEM's application of the criteria to determine a lessee's or grant holder's financial ability to carry out its obligations. In December 2016, BOEM began implementing the NTL and issued orders to lessees and grant holders to provide additional security for "sole-liability properties," i.e., leases, right-of-use and easement grants, and pipeline right-of-way grants, for which the lessee or grant holder was the only party liable for meeting the lease or grant obligations.

On January 6, 2017, BOEM issued a Note to Stakeholders, which extended by six months the implementation timeline of NTL No. 2016-N01 for leases, right-of-use and easement grants, and pipeline right-of-way grants, for which there were co-lessees and/or predecessors in interest, except in circumstances in which BOEM determined there was a substantial risk of nonperformance of the interest holder's decommissioning liabilities. The extension of the implementation timeline allowed BOEM additional time and an opportunity for conversation with interested stakeholders to evaluate whether certain leases and grants were considered sole-liability properties. On February 17, 2017, BOEM issued a second Note to Stakeholders announcing that it would withdraw the December 2016 orders issued on sole-liability properties held by low-risk companies to allow time for the new Administration to review BOEM's financial assurance program. BOEM then issued orders for unsecured sole liability properties held by high-risk companies, and those companies were required to provide financial assurance.

Regulatory Reform - New Executive and Secretary's Orders

On March 28, 2017, the President issued Executive Order (E.O.) 13783—*Promoting Energy Independence and Economic Growth*. The E.O. directed Federal agencies to review all existing regulations and other agency actions and, ultimately, to suspend, revise, or rescind any such regulations or actions that unnecessarily burden the development of domestic energy resources beyond the degree necessary to protect the public interest or otherwise comply with law.

Executive Order 13795 of April 28, 2017, and Secretary's Order 3350 of May 1, 2017, mandated that BOEM review NTL No. 2016-N01 and provide to the Assistant Secretary – Land and Minerals Management (ASLM), the Deputy Secretary, and the Counselor to the Secretary for Energy Policy, a report describing the results of the review and options for revising or rescinding the NTL. These orders required BOEM to determine whether modifications to the NTL are necessary, and if so, to what extent, to ensure operator compliance with lease terms, while minimizing unnecessary regulatory burdens. They also required BOEM to review its financial assurance regulatory policy to determine the extent to which additional regulation is necessary.

On June 22, 2017, BOEM issued a third Note to Stakeholders announcing that it was in the final stages of its review of NTL No. 2016-N01. The third Note to Stakeholders reported that BOEM had determined that "more time was necessary to work with industry and other interested parties," and therefore, it would be appropriate to extend the implementation timeline beyond

June 30, 2017, “except in circumstances where there would be a substantial risk of nonperformance of the interest holder’s decommissioning liabilities.”

BOEM continued to review the provisions of NTL No. 2016-N01, examine options for revising or rescinding the NTL, and make determinations as to the extent to which regulatory revisions were necessary. As a result, BOEM recognized the need to develop a comprehensive framework to assist in identifying, prioritizing, and managing the risks associated with industry activities on the OCS.

Need for Regulatory Action and How this Proposed Rule will Meet that Need

The Outer Continental Shelf Lands Act (OCSLA) authorizes the Secretary of the Interior to promulgate regulations to administer leasing on the OCS. 43 U.S.C. 1334. To administer OCS leasing, BOEM’s regulations require a base level of bonds or other forms of financial assurance from OCS lessees and grant holders, and allow BOEM’s regional directors to require additional security when determined necessary to ensure compliance with obligations under a lease or grant. This financial assurance is to protect the public from bearing the costs associated with nonperformance by lessees, right-of-use and easement grant holders and pipeline right-of-way grant holders. The existing BOEM regulatory framework and recent implementation has resulted in significant regulatory uncertainty for OCS lessees, grant holders and operators.

A strong BOEM financial assurance program would identify and evaluate the financial weaknesses of OCS lessees and grant holders that could impact their ability to meet OCS obligations. Ideally, the proposed action would result in a well-balanced risk management program that would minimize lessee/grant holder burdens and protect the public from the risks and costs of inadequate performance of decommissioning obligations.

Pursuant to BOEM’s standard, historical practice under NTL No. 2008-N07, a lessee or grant holder that passed established financial thresholds would be waived from providing additional security to cover its decommissioning liabilities. Additionally, co-lessees (regardless of their own financial strength), were not required to provide additional security for the decommissioning liability for that lease if one lessee was waived. The decommissioning liability on a lease, on which there were two waived lessees, was not attributed to either lessee in calculating whether a lessee’s cumulative potential decommissioning liability was less than 50%

of the lessee's net worth, which was the standard for a lessee to qualify for a supplemental bonding waiver. The policy was based on the assumption that the chances were very remote that both lessees would become financially distressed and not be able to meet their obligations. While NTL No. 2008-N07 was the most recent, fully implemented NTL, BOEM did not fully enforce it during the oil price collapse of 2014-2016. BOEM was concerned that fully enforcing NTL No. 2008-N07 would have led to an increase of bond demands that, in turn, would have contributed to an increase in bankruptcy filings.

Since 2009, there have been 30 corporate bankruptcies of offshore oil and gas lessees, involving an approximate $7.5 billion in total decommissioning liability. Several of these companies experienced financial distress when oil prices fell sharply at the end of 2014.

The fact that recent bankruptcies and reorganizations have involved un-bonded decommissioning liabilities demonstrates that BOEM's regulations and the waiver criteria in NTL No. 2008-N07 were inadequate to protect the public from potential responsibility for OCS decommissioning liabilities, especially during periods of low hydrocarbon prices. Specifically, ATP Oil & Gas was a mid-sized company with a financial assurance waiver when it filed for bankruptcy in 2012. Similarly, Bennu Oil & Gas was waived at the time of its bankruptcy filing, and Energy XXI and Stone Energy did not lose their waivers until fewer than 12 months prior to filing bankruptcy. While most affected OCS properties were ultimately sold or the companies reorganized under Chapter 11 of the U.S. Bankruptcy Code, several bankruptcies, including those of ATP and Bennu, demonstrated the weaknesses in BOEM's financial assurance program. These weaknesses were apparent because the unsecured decommissioning liabilities exceeded the value of the leases to potential purchasers or investors. BOEM cannot forecast the outcome of bankruptcy proceedings, which may lead to liquidation of an insolvent company. If BOEM has insufficient financial assurance at the time of bankruptcy, there may be no recourse for obtaining additional funds, resulting in the Department of the Interior needing to perform the formerly private decommissioning responsibility with the cost being borne by the American taxpayer.

BOEM attempted to remedy the weaknesses in its financial assurance program as administered under NTL No. 2008-N07 with new NTL No. 2016-N01. However, NTL No. 2016-N01 provisions established criteria that created programmatic issues and unintended consequences in the measurement of risk. This was communicated by BOEM via the aforementioned ‘Note to Stakeholders’ on January 6, 2017.

Once the unintended programmatic issues came to light and in response to E.O.s 13783 and 13795 and Secretary’s Order No. 3350, BOEM reviewed NTL No. 2016-N01 to examine options for revising or rescinding the NTL and reviewed its financial assurance regulatory policy to determine the extent to which regulatory revisions were necessary. As a result of this review, BOEM recognized the need to update its existing regulations to better manage the risks associated with industry activities on the OCS. The proposed regulations are a result of the mandates of the Executive and Secretary’s Orders.

Accordingly, BOEM is proposing a comprehensive regulatory framework to assist in identifying, prioritizing, and managing the risks associated with industry activities on the OCS. The notice of proposed rulemaking (NPRM) is proposing changes to 30 CFR Part 556, Subpart I-Bonding or Other Financial Assurance pertaining to the additional security requirements for leases, as well as the corresponding sections of 30 CFR Part 550, Subparts A and J, pertaining to bonding and other security requirements for right-of-use and easement grants and pipeline right-of-way grants.

The proposed changes would 1) modify the evaluation process for requiring additional security, 2) streamline the evaluation criteria, and 3) remove restrictive provisions for third-party guarantees and decommissioning accounts. These proposed changes reflect an interest in improving the risk mitigation provided by BOEM’s joint and several liability regime, including regulations holding assignors liable for accrued obligations, while better aligning the evaluation criteria with banking and finance industry practice, providing greater flexibility for industry, and continuing to protect taxpayers from exposure to the consequences of noncompliance with DOI regulations and OCS lease terms, particularly the nonperformance of decommissioning obligations.

Baseline

The regulatory analysis presented below estimates impacts of the proposed rule by comparing the costs and benefits of the new provisions in the rule to the baseline scenario. The baseline scenario represents BOEM’s best assessment of how the OCS financial assurance program would be administered absent this regulatory action. The baseline includes compliance with existing regulations as clarified by BOEM guidance documents such as NTLs, as well as current BOEM and industry practices that are consistent with existing BOEM regulations. BOEM considered three primary options for the proposed rule's regulatory baseline. These include:

1. NTL No. 2016-N01, *Requiring Additional Security*
2. Current (Partial) Implementation of NTL No. 2016-N01
3. NTL No. 2008-N07, *Supplemental Bond Procedures*

BOEM has determined that the partial implementation of NTL No. 2016-01 (option 2 above) is the most appropriate regulatory baseline for this analysis. This is BOEM's most recent financial assurance framework; and reflects the decision to require only high-risk companies to bond their sole-liability properties. This baseline most closely reflects the actual costs of current practice on a forward-looking basis and takes into account circumstances where bonding was required during the last two years. NTL No. 2016-N01 provisions currently being enforced include BOEM's categorizing a lessee's liabilities based on risk, with the highest risk being properties where one lessee or grant holder is the sole party responsible for decommissioning (a sole-liability property). On a sole-liability property, if the one liable party becomes insolvent or bankrupt, there is no other private party currently liable for the performance of decommissioning.

BOEM has classified companies into two tiers based on the likelihood of nonperformance of obligations based on their credit rating; BOEM classified the higher risk companies as Tier 2. BOEM has focused on the higher risk (Tier 2 [unrated companies or companies with an issuer credit rating B+ or lower[2]]) solely liable parties and has issued bond demands for Tier 2 sole-liability properties. BOEM permits those lessees or grant holders with acceptable issuer credit ratings (Tier 1) to forgo providing additional financial assurance for their sole-liability properties. Under the partial implementation of NTL No. 2016-N01, BOEM has not issued bond demands for properties other than those that are sole-liability, Tier-2 properties and has retained

[2] Using the S&P rating scale, which is also used by Fitch; Table 2 includes the corresponding ratings used by Moody's.

bonds submitted under previous guidance for which decommissioning liability still exists. **Figure 1** shows the partial implementation of NTL No. 2016-N01.

Figure 1 Baseline Framework (Partial Implementation of NTL No. 2016-N01)[3]

		Sole Liability Properties	**Joint Liability Properties (Co-lessee, Co-grant holder or Predecessor)**
Lessee or Grant Holders (including co-lessees/holders and predecessor lessees/holders	**Tier 1 (BB- or above)**	Supplemental Financial Assurance Not Demanded	Supplemental Financial Assurance Not Demanded
	Tier 2 (B+ or below)	Supplemental Financial Assurance Required	Supplemental Financial Assurance Not Demanded

During the partial implementation of NTL 2016-N01, BOEM continued to hold bonds previously provided to BOEM to cover OCS liabilities. The total face amount of these bonds is approximately $3.3 billion as shown in **Table 13**. Most of these bonds would not be required under the baseline to cover obligations associated with accrued Tier 2 sole-liability (**Table 10**) obligations. If the proposed rule is adopted, and properties with a Tier 1 company in the chain of title are not be required to provide additional financial assurance, BOEM would return most of these bonds to the lessees or grant holders. For purposes of this analysis, however, BOEM is including the bonds held during the partial implementation of NTL 2016-N01 as part of the baseline.

BOEM has opted not to use the full implementation of NTL No. 2016-N01 as the regulatory baseline because BOEM never fully implemented most of the NTL's provisions. BOEM withdrew most of the initial demand letters, and did not implement those provisions of NTL No. 2016-N01 that it found it could not efficiently implement. A baseline that presumes full implementation of NTL No. 2016-N01 would reflect the latest written policy, but not actual

[3] Lessees/holders with a credit rating of at least BB- (S&P), or Ba3 (Moody's) are considered "Tier 1". Companies that do not meet these criteria, or choose not to provide financials to BOEM, are considered "Tier 2." See discussion of "Tier 1" and "Tier 2" at pp. 21-23 and 34-35.

practice. Regardless, BOEM evaluates the full implementation of NTL No. 2016-N01 as a more stringent regulatory alternative in the section below entitled, "Full Implementation of NTL No. 2016-N01 (More Stringent Regulatory Alternative**).**"

Additionally, BOEM has opted not to use NTL No. 2008-N07, *Supplemental Bond Procedures*, as the baseline. While this framework was the most recent, fully implemented NTL, it was superseded by NTL No. 2016-N01, including the partial implementation thereof. Therefore, 2008-N07 has not been in effect for several years and there is no way for BOEM to estimate what bond demands would have been issued based upon it. If BOEM used NTL No. 2008-N07 (as written and designed) for the baseline, it would need to estimate the amount of additional bonds submitted to BOEM in response to demands that could have been made. BOEM does not have access to information, such as financial statements or reserve estimates from all companies required for this analysis.

Provisions of the Proposed Rule

BOEM's current financial assurance framework has two main components: 1) base bonds, generally required in amounts prescribed by regulation, and 2) additional (supplemental) bonds or other security, above the prescribed amounts, which may be required by order of the Regional Director upon determination that an increased amount is necessary to ensure compliance with OCS obligations. The amount of supplemental bonds or other security required by the Regional Director is directly related to the lessee's or grant holder's level of liability and its perceived risk of default.

To maintain a balanced financial assurance framework, BOEM proposes to: 1) modify the evaluation process for requiring additional security; 2) streamline the evaluation criteria; and 3) remove restrictive provisions for third-party guarantees and decommissioning accounts that lessees and grant holders may use to ensure that their OCS obligations will be met.

The proposed rule would allow the Regional Director to require additional security only when: (1) a lessee or grant holder poses a substantial risk of becoming financially unable to carry out its obligations under the lease or grant; (2) there is no co-lessee, co-grant holder or predecessor that is liable for those obligations and that has sufficient financial capacity to carry out the obligations; and (3) the property is at or near the end of its productive life, and thus, may not have sufficient proved reserves to be sold to a buyer that would assume these obligations.

If the proposed requirements were more stringent, the burden on lessees and grant holders might outweigh the benefit to the public. BOEM believes that if the proposed financial assurance requirements were any less stringent, they would expose the government and taxpayer to unacceptable levels of financial risk. BOEM maintains that updating its financial assurance program as proposed is an effective way to address the complex financial issues associated with ensuring OCS decommissioning obligations are met. This rulemaking process will afford all interested and potentially affected parties the opportunity to provide substantive input on the best way to achieve this balance.

Currently, BOEM's additional security evaluation process, contained in 30 CFR 556.901(d), determines a lessee's ability to carry out present and future obligations through an analysis of five criteria. The proposed action would alter BOEM's evaluation process to include the ability of any co-lessee(s) and/or any predecessor lessee(s) to carry out present and future obligations. This change recognizes that the joint and several liability of all current and predecessor lessees and grant holders permits BSEE to require co-lessees, co-grant holders and/or liable predecessors to perform decommissioning when a current lessee or grant holder is unable to perform. While lessees and grant holders have always been subject to joint and several liability for accrued obligations, this is the first time BOEM's regulations would explicitly consider the financial strength of predecessor lessees or grant holders when determining the additional security requirements for current lessees and grant holders.

Under BOEM and BSEE regulations, current lessees and grant holders are jointly and severally liable, meaning each is liable up to the full cost of meeting the relevant decommissioning obligation, and BOEM and BSEE may pursue satisfaction against any lessee or grant holder. Moreover, each owner of operating rights is jointly and severally liable for decommissioning with the record title lessee and others with operating rights for that operating rights tract. As such, each lessee or grant holder with an ownership interest is liable for all decommissioning obligations that accrue during its ownership and those that accrued prior to its ownership. In addition, a lessee or grant holder that transfers its ownership rights to another party will continue to be liable after assigning that interest and until that obligation is met.

However, any decommissioning obligations that accrue after the lessee or grant holder transfers its ownership rights accrue only to the new lessee or grant holder (or subsequent lessees or holders).

BOEM proposes to look at the following evaluation criteria to determine the ability of a lessee or a grant holder to carry out present and future obligations:

Lessees: must meet at least one of the following criteria:

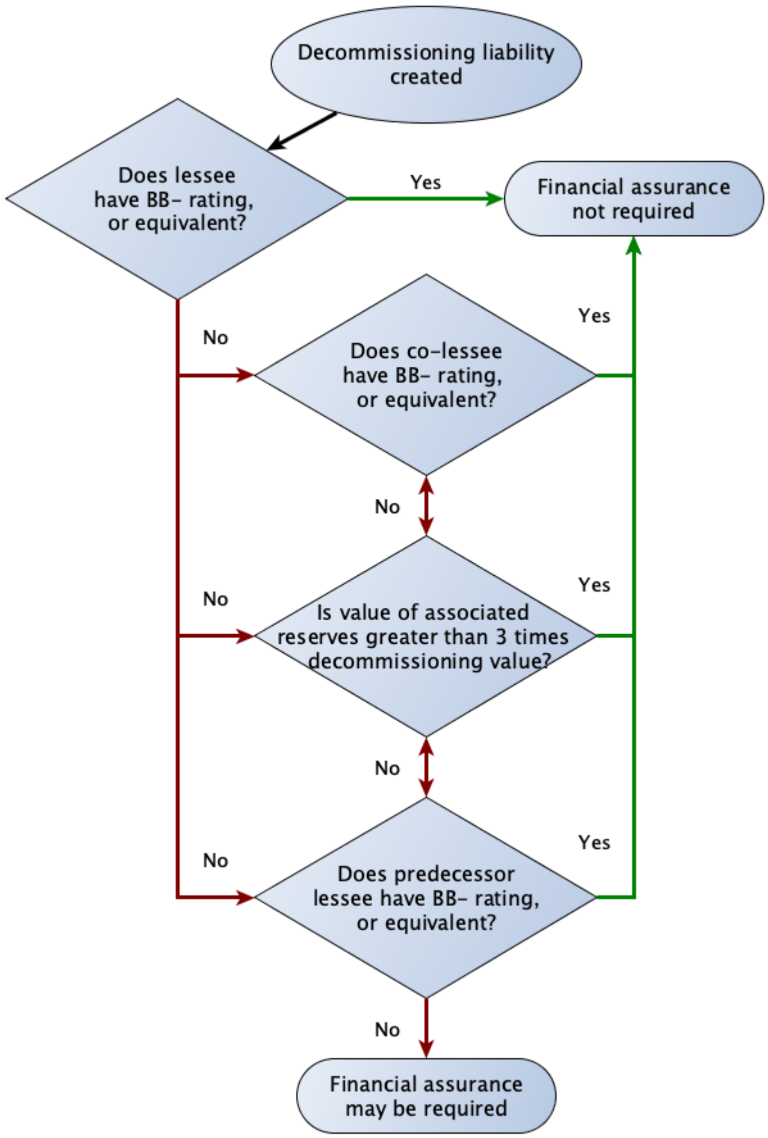
(1)The lessee must have an issuer credit rating greater than or equal to either BB- (S&P) or Ba3 (Moody's), or an equivalent proxy credit rating determined by BOEM (a company with one of these ratings is referred to as a Tier 1 company);

(2) If the lessee does not meet the criteria in paragraph (1) above: (i) a co-lessee must have an issuer credit rating, or a proxy credit rating, that meets the criteria in paragraph (1); (ii) there must be proved oil and gas reserves on the lease, the net present value of which exceeds three times the cost of the decommissioning associated with the production of those reserves, or (iii) a predecessor lessee liable for decommissioning any facilities on the lease must have an issuer credit rating or a proxy credit rating that meets the criteria set forth in paragraph (1) above. However, even if a predecessor meets the issuer credit rating or proxy credit rating criteria, the Regional Director may require the lessee to provide additional security for decommissioning obligations for which such a predecessor is not liable.

Right-of-Use and Easement (RUE)/Right-of-Way (ROW) Grant Holders: must have an issuer credit rating, or a proxy credit rating, that meets the criteria in paragraph (1) above. BOEM will also consider the financial strength of co-grant holders, predecessors of grant holders and predecessors (such as former lessees) with accrued liability for the facilities on such ROWs and RUEs, using the same issuer credit rating or proxy credit rating criteria set forth above. **Figure 2** shows the proposed rule evaluation process. The value of proved oil and gas reserves is not considered for grants because neither a RUE grant nor a pipeline ROW grant entitles the holder to any interest in oil and gas reserves.

Third-party Guarantors: The eligibility to serve as a third-party guarantor is determined on the basis of the first paragraph under Lessee above.

Figure 2 Proposed Rule Company and Liability Evaluation Process



BOEM proposes to balance the financial risk to the government/taxpayer with minimizing unnecessary regulatory burdens. The issuer credit ratings assigned by credit rating agencies provide investors a consistent and objective evaluation of a company's capability to meet its debt obligations. The issuer credit rating considers the company's current financial condition and the industry's performance and risk conditions.

BOEM is proposing to define the split between Tier 1 and Tier 2 as between BB- and B+ (S&P) and between Ba3 and B1 (Moody's). Thus, companies with an issuer credit rating greater than or equal to either BB- (S&P), or Ba3 (Moody's), or an equivalent proxy credit rating determined by BOEM, would be considered "Tier 1." Companies with an issuer credit rating of less than or equal to B+ (S&P), or B1 (Moody's), or an equivalent proxy credit rating determined by BOEM, or that choose not to provide audited financial statements to BOEM for a proxy credit rating determination, would be considered "Tier 2." **Table 2** below provides descriptions of the issuer credit ratings used by Standard and Poor's and Moody's, which would form the basis for BOEM's proposed financial assurance evaluation, described in **Figure 2**. **Table 3** (S&P detail), **Table 21** (Moody's consolidated) and **Table 22** (S&P consolidated) provide the historic default rates for companies with the applicable issuer credit ratings.

Table 2 Credit Rating Descriptions (S&P and Moody's)	
Long-Term Issuer Credit Ratings (Standard & Poor's)*	**Global Long-Term Rating Scale (Moody's)****
An obligor rated '**AAA**' has extremely strong capacity to meet its financial commitments. 'AAA' is the highest issuer credit rating assigned by S&P Global Ratings.	Obligations rated '**Aaa**' are judged to be of the highest quality, subject to the lowest level of credit risk.
An obligor rated '**AA**' has very strong capacity to meet its financial commitments. It differs from the highest-rated obligors only to a small degree.	Obligations rated '**Aa**' are judged to be of high quality and are subject to very low credit risk.
An obligor rated '**A**' has strong capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in higher-rated categories.	Obligations rated '**A**' are judged to be upper-medium grade and are subject to low credit risk.
An obligor rated '**BBB**' has adequate capacity to meet its financial commitments. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments.	Obligations rated '**Baa**' are judged to be medium-grade and subject to moderate credit risk and as such may possess certain speculative characteristics.
An obligor rated '**BB**' is less vulnerable in the near term than other lower-rated obligors. However, it faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitments.	Obligations rated '**Ba**' are judged to be speculative and are subject to substantial credit risk.
Tier 1 ↑ **Tier 2 ↓**	**Tier 1 ↑** **Tier 2 ↓**
An obligor rated '**B**' is more vulnerable than the obligors rated '**BB**', but the obligor currently has the capacity to meet its financial commitments. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments.	Obligations rated '**B**' are considered speculative and are subject to high credit risk.
An obligor rated '**CCC**' is currently vulnerable and is dependent upon favorable business, financial, and economic conditions to meet its financial commitments.	Obligations rated '**Caa**' are judged to be speculative of poor standing and are subject to very high credit risk.
An obligor rated '**CC**' is currently highly vulnerable. The '**CC**' rating is used when a default has not yet occurred, but S&P Global Ratings expects default to be a virtual certainty, regardless of the anticipated time to default.	Obligations rated '**Ca**' are highly speculative and are likely in, or very near, default, with some prospect of recovery of principal and interest.
An obligor rated '**SD**' (selective default) or '**D**' is in default on one or more of its financial obligations including rated and unrated obligations but excluding hybrid instruments classified as regulatory capital or in nonpayment according to terms.	Obligations rated '**C**' are the lowest rated and are typically in default, with little prospect for recovery of principal or interest.

<table>
<tr><th colspan="2">Table 2 Credit Rating Descriptions (S&P and Moody's)</th></tr>
<tr><th>Long-Term Issuer Credit Ratings (Standard & Poor's)*</th><th>Global Long-Term Rating Scale (Moody's)**</th></tr>
<tr><td>*Ratings from 'AA' to 'CCC' may be modified by S&P with the addition of a plus (+) or minus (-) sign to show relative standing within the rating categories. S&P source: https://www.standardandpoors.com/en_US/web/guest/article/-/view/sourceId/504352</td><td rowspan="2">**Moody's appends numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category. Moody's source: https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_79004</td></tr>
<tr><td>‡Obligors rated 'BB', 'B', 'CCC', and 'CC' are regarded as having significant speculative characteristics. 'BB' indicates the least degree of speculation and 'CC' the highest. While such obligors will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions.</td></tr>
</table>

BOEM reviewed historical default rates across the entire credit rating spectrum to inform and determine an appropriate level of acceptable public risk. The average S&P one-year default rate for BB- rated companies from 1981 to 2017 was 1.00% (**Table 3**).[4] The average S&P historical one-year default rate of BB- rated companies is significantly better than the average default rate for B rated companies (ranging from 2.08% to 7.15%) and C rated companies (26.82%). For the higher BB rating of BB+, the average one-year default rate (0.34%) compares similarly to the average default rate for the lowest investment-grade rating (BBB-, 0.25%). The one-year default rate (**Table 3**, highlighted for emphasis) is the most relevant for this regulatory analysis, since BOEM is proposing to reevaluate the financial health of lessees and grantees at least annually. Under current policy, BOEM reviews the financial status of lessees and grantees at a minimum on an annual basis, the review typically corresponding with the release of audited annual financial statements. In addition, BOEM continually monitors the financial status of lessees and grantees throughout the year and can demand supplemental financial assurance through the Regional Director's regulatory authority as a result of mid-year changes in financial status. The historical default rates in these tables are not industry specific. But credit ratings issued by credit rating agencies act as a consistent assessment of creditworthiness and as a pricing benchmark for relative value across industry sectors. Therefore, BOEM considers that

[4] The one-year cumulative default rate counts all defaults that happened within one year of the rating; these defaults could happen much sooner than one year from receiving such a rating.

these default rates are reasonable proxies for companies with corresponding issuer credit ratings holding OCS decommissioning obligations.

Table 3 Standard & Poor's Average Cumulative 1-Year Default Rates by Letter Rating[5]

Global Corporate Average Cumulative Default Rates By Rating Modifier (1981-2017)

(%)	--Time horizon (years)--														
Rating	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
AAA	0.00	0.03	0.13	0.24	0.35	0.46	0.51	0.60	0.65	0.71	0.74	0.77	0.80	0.86	0.93
AA+	0.00	0.05	0.05	0.10	0.16	0.21	0.27	0.33	0.39	0.45	0.51	0.57	0.64	0.70	0.77
AA	0.02	0.03	0.08	0.22	0.36	0.48	0.61	0.72	0.81	0.91	0.99	1.05	1.16	1.23	1.30
AA-	0.03	0.09	0.18	0.25	0.33	0.45	0.52	0.57	0.63	0.69	0.75	0.82	0.84	0.89	0.94
A+	0.05	0.09	0.20	0.34	0.45	0.55	0.66	0.79	0.93	1.08	1.22	1.36	1.54	1.74	1.92
A	0.06	0.15	0.24	0.36	0.49	0.68	0.86	1.03	1.23	1.47	1.65	1.81	1.94	2.03	2.21
A-	0.07	0.17	0.28	0.40	0.57	0.74	0.98	1.16	1.30	1.42	1.54	1.68	1.82	1.95	2.05
BBB+	0.11	0.31	0.53	0.77	1.03	1.32	1.54	1.78	2.04	2.30	2.56	2.74	2.98	3.28	3.61
BBB	0.17	0.43	0.68	1.05	1.42	1.80	2.15	2.49	2.85	3.23	3.61	3.95	4.21	4.32	4.53
BBB-	0.25	0.77	1.39	2.11	2.84	3.50	4.09	4.65	5.11	5.53	6.00	6.39	6.74	7.28	7.68
BB+	0.34	1.11	2.02	2.94	3.86	4.74	5.50	6.05	6.70	7.33	7.74	8.21	8.66	9.04	9.59
BB	0.56	1.71	3.38	4.94	6.52	7.77	8.89	9.85	10.75	11.53	12.32	12.99	13.42	13.76	14.21
BB-	1.00	3.13	5.37	7.66	9.66	11.62	13.24	14.80	16.04	17.12	17.98	18.71	19.48	20.22	20.87
B+	2.08	5.71	9.23	12.21	14.53	16.33	17.98	19.43	20.77	21.97	22.96	23.67	24.39	25.09	25.79
B	3.60	8.29	12.29	15.46	17.89	20.15	21.66	22.76	23.77	24.81	25.59	26.32	26.90	27.45	28.01
B-	7.15	14.28	19.62	23.37	26.18	28.31	29.99	31.13	31.84	32.40	33.18	33.78	34.05	34.36	34.63
CCC/C	26.82	36.03	41.03	43.97	46.22	47.13	48.33	49.23	50.08	50.71	51.20	51.71	52.34	52.82	52.82
Investment grade	0.10	0.26	0.45	0.68	0.92	1.17	1.40	1.61	1.82	2.03	2.23	2.40	2.57	2.73	2.91
Speculative grade	3.75	7.31	10.39	12.90	14.95	16.64	18.05	19.23	20.27	21.21	22.00	22.65	23.25	23.80	24.34
All rated	1.50	2.95	4.22	5.29	6.18	6.94	7.57	8.12	8.60	9.05	9.44	9.77	10.07	10.35	10.63

Sources: S&P Global Fixed Income Research and S&P Global Market Intelligence's CreditPro®.

BOEM also reviewed 169 North American oil and gas companies that declared bankruptcy between January 2012 and August 2018. This period saw a significant downturn in global oil prices, resulting in significant financial distress to the industry. Therefore, BOEM considers this time period a very relevant sample to determine default risk. **Figure *3*** displays the credit distribution one year prior to bankruptcy filing for the 169 analyzed companies.

[5] S&P historical default rates are not industry specific. S&P Global Ratings, 2017 Annual Global Corporate Default Study and Rating Transitions, April 5, 2018 (Table 26).

Figure 3 North American Exploration and Production Company Bankruptcies 2012 - 2018

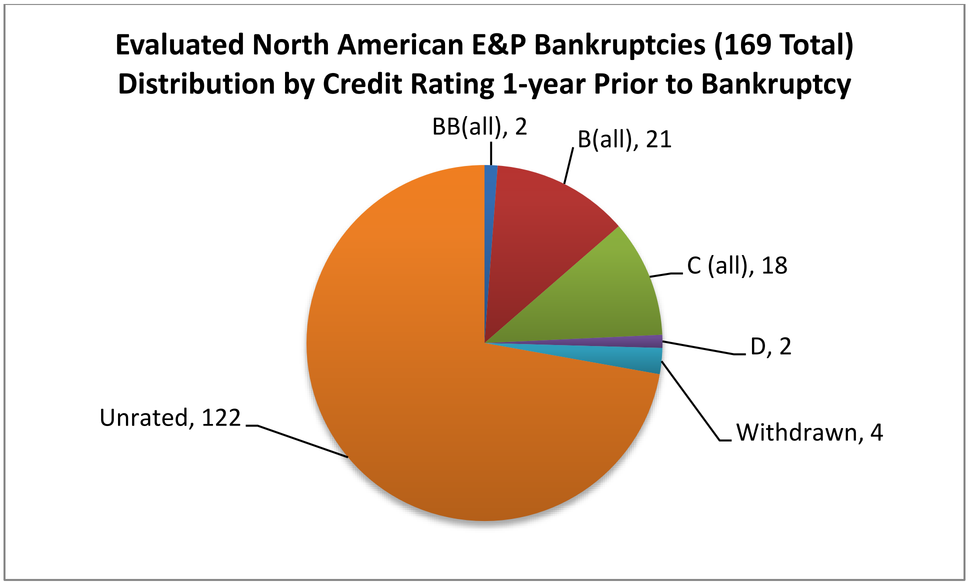


Figure *3* shows that most companies did not have issuer credit ratings available. Under the proposed rule, BOEM would treat unrated companies as high-risk "Tier 2" companies.

None of the 169 companies were rated at or above BB- at time of bankruptcy. Out of the 169 companies analyzed, there were only two cases of companies (Linn Energy and Pacific Exploration Company) that maintained a BB- or better rating 1 year prior to bankruptcy. However, both Linn Energy and Pacific Exploration Company were downgraded from BB- prior to bankruptcy, but within the 1-year timeframe. That downgrade below BB- could have, under the proposed rule, prompted BOEM to seek financial assurance from both companies, but perhaps too late to obtain security. However, both companies successfully reorganized and emerged from bankruptcy. Due to the re-organization and the assumption of their respective lease portfolios together with asset retirement obligations, BOEM concludes that it is unlikely that the decommissioning burden would have fallen on taxpayers had either company owned U.S. offshore assets in Federal waters, even if BOEM had failed to secure financial assurance within this period of downgrade and bankruptcy.

Section-by-Section Analysis of Proposed Rule

Table 4 describes the revisions to Part 550, Subparts A and J, and Part 556, Subpart I, and their anticipated impacts. BOEM concludes these revisions would improve BOEM's risk management processes, facilitate a better understanding of the existing regulatory requirements by the affected parties, and improve the operators' ability to effectively and efficiently comply. The baseline for estimating the compliance cost or cost savings from the proposed changes is the partial implementation of NTL No. 2016-N01. The rulemaking preamble provides a detailed analysis of the proposed changes to each section.

Table 4: Summary of Amendments

30 CFR Section	Description of Proposed Amendments	Impact on Cost	Impact on Default Risk [taxpayer perspective]
§ 550.105 Definitions	Adds definitions for: *Issuer credit rating*, *Predecessor*, *Right-of-Use and Easement (RUE)*, and *Security*; removes definitions of *Easement* and *Right-of-Use;* revises definition of *"You."*	No cost	No impact
§ 550.160 When will BOEM grant me a right-of-use and easement, and what requirements must I meet?	Adds cross-references to other sections to clarify the additional security requirements for RUEs in revised § 550.166(d). Aligns the decommissioning requirements for RUEs with ROWs and leases by cross-referencing 30 CFR Part 250, Subpart Q requirements.	No cost, provides clarity that bonding requirements may be found in 550.166(d). See BSEE IRIA for impacts associated with Part 250, Subpart Q.	No impact, provides clarity that bonding requirements may be found in 550.166(d) See BSEE IRIA for impacts associated with Part 250, Subpart Q.
§ 550.166 If BOEM grants me a right-of-use and easement, what surety bond or other security must I provide?	Revises the title of this section to clarify that every RUE grant holder, whether a State lessee or an OCS lessee, may be required to provide additional security if BOEM determines it is needed.	No cost	No impact
§ 550.166 If BOEM grants me a right-of-use and easement, what surety bond or other security must I provide?	Revises paragraph (d) to expand BOEM's consideration for ability to meet RUE obligations to a predecessor RUE grant holder, or a predecessor lessee liable for decommissioning.	Would decrease the bonding cost for some individual RUE grant holders, depending on the credit rating and presence of Tier 1 predecessor grant	This change is estimated to be risk neutral inasmuch as strong co-grantees and predecessors are as protective as a surety.

30 CFR Section	Description of Proposed Amendments	Impact on Cost	Impact on Default Risk [taxpayer perspective]
		holders, lessees, or their guarantors.	
§ 550.166 If BOEM grants me a right-of-use and easement, what surety bond or other security must I provide?	Revises paragraph (d) to provide that BOEM would use the same credit rating and/or proxy credit rating criteria to evaluate a RUE grant holder as proposed for lessees. Establishes criteria in regulations where previously none.	Would increase or decrease the bonding cost for some individual RUE grant holders depending on the credit rating.	Would reduce risk to the taxpayer.
§ 550.1011 Bond or other security requirements for pipeline right-of-way grant holders.	Revises paragraph (d) to expand BOEM's consideration for ability to meet ROW obligations to any co-ROW grant holder, and/or any predecessor ROW grant holder(s).	Would decrease the bonding cost for individual ROW grant holders, depending on the credit rating and presence of Tier 1 predecessors, co-grant holders per § 556.901(d)(1).	This change is estimated to be risk neutral inasmuch as strong co-grantees and predecessors are as protective as a surety.
§ 550.1011 Bond or other security requirements for pipeline right-of-way grant holders.	Revises paragraph (d) to provide that BOEM would use the same credit rating and/or proxy credit rating criteria to evaluate a pipeline ROW grant holder as proposed for lessees.	Would increase or decrease the bonding cost for some individual pipeline ROW grant holders depending on the credit rating.	Would reduce the risk to the taxpayer.
§ 556.105 Acronyms and definitions.	Adds new definitions for *Issuer credit rating* and *Predecessor;* removes the definition of *Security or securities;*" adds a new definition of *"Security;"* and revises the definitions of *Right-of-Use and Easement* and *You.*	No cost	No impact
§ 556.900 Bond or other security requirements for an oil and gas or sulfur lease.	Clarifies text in paragraphs (a), (g) and (h).	No cost	No impact
§ 556.901 Bonds and additional security.	Clarifies text in paragraphs (a) and (c).	No cost	No impact

30 CFR Section	Description of Proposed Amendments	Impact on Cost	Impact on Default Risk [taxpayer perspective]
§ 556.901 Bonds and additional security.	Revises paragraph (d) to expand BOEM's consideration of capacity to meet lease obligations to include any co-lessee(s) and predecessor lessee(s).	Compared to the regulatory baseline, would decrease the bonding cost for individual lessees, depending on the credit rating and presence of Tier 1 predecessors.	This change is estimated to be risk neutral inasmuch as strong co-lessees and predecessors are as protective as a surety.
§ 556.901 Bonds and additional security.	Revises paragraph (d) to reduce the BOEM evaluation criteria from five factors to two: 1) issuer credit rating or proxy credit rating, and 2) net present value of proved oil and gas reserves on the lease. These two criteria align BOEM's evaluation process with accepted financial risk evaluation methods used by the banking and finance industry.	Would increase or decrease the bonding cost for some individual lessees depending on the credit rating.	Estimated to reduce the risk to the taxpayer.
§ 556.901 Bonds and additional security.	Clarifies text in paragraphs (e) and (f).	No cost	No impact
§ 556.902 General requirements for bonds or other security.	Revises paragraph (a) to clarify that the general requirements for bonds or other security provided by lessees, operating rights owners or operators of leases also apply to bonds provided by right-of-use and easement grant and pipeline right-of-way grant holders.	No cost	No impact
§ 556.903 Lapse of bond.	Revises paragraph (a) to apply to bonds or other security required for RUEs (§ 550.166) and ROWs (§ 550.1011) as well as leases.	No cost	No impact
§ 556.904 Decommissioning accounts.	Removes paragraphs (a)(3), (c) and (d) to remove the requirement to	No cost or cost savings, because consistent with	No impact, because consistent with current policy and practice.

30 CFR Section	Description of Proposed Amendments	Impact on Cost	Impact on Default Risk [taxpayer perspective]
	buy Treasury securities when the account exceeds $250,000.	current policy and practice.	
§ 556.904 Decommissioning accounts.	Revises paragraph (a) to add a provision requiring a lessee or grant holder to immediately provide and maintain a replacement bond or other security in the event of failure to make any scheduled payment into the account.	No cost	No impact
§ 556.905 Third-party guarantees	Revises paragraph (a) to allow a third-party guarantee to be used for a RUE or ROW grant, providing more flexibility.	Cost Savings; fewer bonds required.	No impact, the same level of financial security will be required.
§ 556.905 Third-party guarantees.	Revises paragraph (c) to provide that BOEM would evaluate guarantors using the same credit rating or proxy credit rating criteria used for evaluating lessees and grant holders.	Would streamline third-party guarantor evaluation criteria. Estimated to be minimal cost savings but not quantified.	Designed to reduce risk.
§ 556.905 Third-party guarantees	Revises paragraph (d) to allow cancellation of third-party guarantees on the same terms and conditions provided in §556.906(d)(2), i.e. when BOEM determines a lessee or grant holder meets certain financial criteria and additional bonds are no longer needed; when the operations for which a guarantee was provided were cancelled prior to accrual of any decommissioning obligations; or when cancellation is appropriate because, under the regulations, BOEM determines such security never should have been required.	Potential cost savings, but not quantified.	No impact

30 CFR Section	Description of Proposed Amendments	Impact on Cost	Impact on Default Risk [taxpayer perspective]
§ 556.905 Third-party guarantees	Revises paragraph (a) to eliminate the requirement to cease production, until bond coverage requirements are met, when a third-party guarantor becomes unqualified and replaces it with a requirement to immediately submit and maintain a replacement security covering those obligations previously secured by the guarantee.	No cost savings estimated because BOEM does not anticipate a company would have forgone production revenues by failing to post financial assurance.	No impact
§ 556.905 Third-party guarantees	Revises paragraph (c) to remove the requirement for the guarantee to cover obligations of all lessees or grant holders and operators.	BOEM estimates this change to be cost neutral. Potential cost savings to guarantors (but not quantified) from not requiring the guarantor to explicitly cover all parties and all obligations. Offset by additional costs to those other interest holders who have to separately provide security.	No impact – all Tier 2 liabilities will still have to be secured
§ 556.906 Termination of the period of liability and cancellation of a bond.	Revises paragraph (d) to allow cancellation of additional bonds for leases, RUEs or ROWs when the operations for which the bond was provided ceased prior to accrual of any decommissioning obligations, or when cancellation of the bond is appropriate because, under the regulations, BOEM determines the bond never should have been required.	Negligible cost savings. Certain lessees and grant holders may realize savings from the earlier termination of bond premiums and obligations than with historical practices.	No impact.
§ 556.907 Forfeiture of bonds or other securities.	Revises paragraph (a) to add bonds for RUE and ROW grants to those subject to the forfeiture provisions of this section. Also revises paragraph (a)	No cost, because forfeiture of ROW/RUE bonds was implied in the existing regulations	Minor reduction in risk because forfeiture of ROW/RUE bonds was implied in the existing regulations.

30 CFR Section	Description of Proposed Amendments	Impact on Cost	Impact on Default Risk [taxpayer perspective]
	to provide that the Regional Director may call all or part of a bond or guarantee (up to the limit of the guarantee) if the lessee or grant holder refuses, or is unable, to comply with any term or condition of a lease, RUE or ROW.		

Additional information on the public impact of the proposed rule can be found in section **IV. Public Impact of the Proposed Rule (Benefits)** of this IRIA.

II. Assumptions and Analytical Methodology

Affected Population: The proposed rule would affect current and predecessor lessees, sublessees, right-of-use and easement grant holders, and pipeline right-of-way grant holders. BOEM's analysis shows that this includes roughly 555 companies with record title ownership or operating rights in leases and ownership of right-of-use and easement grants and pipeline right-of-way grants. These lessees and grant holders are responsible for complying with BOEM regulations and therefore would bear the compliance costs and realize the cost savings associated with the provisions in this proposed rulemaking. The IRIA assumes the financial profile of affected companies would remain constant over the twenty-year forecast horizon, but makes no assumptions about the number of affected companies.

Decommissioning Activity Levels: Activity level forecasts are based on planning areas that have existing or previous OCS activity, including the three Gulf of Mexico planning areas and existing liabilities in the Alaska and Pacific Regions. BOEM is drafting a new National OCS Oil and Gas Leasing Program, which proposes opening additional planning areas for leasing, likely generating additional OCS activity. Due to the long timeline and high cost of exploration and development in a new region, it is likely that only well-capitalized, financially healthy companies (Tier 1) would initially move into any new areas, should any such areas be included in the next National OCS Program; therefore, under the proposed action this analysis assumes additional bonding would not be required to cover decommissioning liabilities in those areas and focuses only on areas with existing or previous OCS activity.

Decommissioning liabilities are forecast over the 20-year time period using two methods: (1) the decay rate for the Gulf of Mexico and (2) the forecasted decommissioning schedule in the Pacific. For the Gulf of Mexico Region, the total liability is reduced by an annual decay rate. The decay rate is based on a BOEM contracted decommissioning trend study (Kaiser & Siddhartha, 2018), see *Federal rulemaking portal: http://www.regulations.gov* (Docket ID: BOEM-2018-0033), completed in May 2018. Shallow water liabilities are expected to decay an *average* of 2.23% per year, decreasing by about 50% over the 20-year forecast, as the number of facilities decommissioned is projected to be greater than the number installed. This reflects the vintage of shallow water operations, including aging facilities and decreasing economic reserves. Deepwater liability levels are expected to remain constant over the 20-year period, as facilities are decommissioned at roughly the same rate they are installed. These two rates are incorporated into a composite decay rate for the Gulf of Mexico using a weighted average based on the aggregate shallow and deep-water decommissioning liabilities. **Table 5** shows the decay rate over the first five years of the analysis, and every five years thereafter.

Table 5 Gulf of Mexico Liability Decay Rate from 2018 Levels

		2018	**2019**	**2020**	**2021**	**2022**	**2023**	**2028**	**2033**	**2038**
Shallow	71%	100%	94%	90%	86%	82%	78%	63%	56%	51%
Deep	29%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Weighted		**100%**	**96%**	**93%**	**90%**	**87%**	**84%**	**73%**	**69%**	**65%**

Liabilities in the Pacific region are based on 23 facilities and their operations offshore California. Of these facilities, 18 are operational and five have commenced decommissioning operations. Due to the small number of these facilities compared to the number of facilities in the Gulf of Mexico, BOEM estimated a decommissioning year for each facility, based on a decommissioning schedule provided by the operator or a BOEM forecast. The Pacific Region’s liabilities are reduced over the 20 years of analysis based on BOEM’s estimated decommissioning years.

Credit Ratings: BOEM uses issuer credit ratings from the major credit rating agencies, such as S&P or Moody's, or BOEM determines a proxy credit rating based on sufficient audited financial information provided by the lessee or grant holder or co-lessee, co-holder, or predecessor company with accrued liability. In some cases, usually with smaller companies, an agency credit rating may not be available, and company financials may not have been provided to BOEM. In these cases, the company and any associated liability are considered *unrated* and categorized as Tier 2.

Tiers: Under the proposed rule and for this analysis, BOEM uses the credit rating of lessees holding OCS decommissioning liabilities to assign companies to a "Tier." BOEM has streamlined and simplified the criteria used to evaluate a company's ability to meet its OCS liabilities. Companies assigned an issuer credit rating greater than or equal to either BB- (S&P), or Ba3 (Moody's) or an equivalent proxy rating determined by BOEM using audited financial information are considered "Tier 1" for the purposes of this analysis. Companies that do not meet these criteria, or choose not to provide financials to BOEM for a proxy credit rating determination, are treated as "Tier 2" for this analysis.

The tier assignment is the primary method for determining the estimated financial assurance, if any, that BOEM may require. Under the proposed rule, when a decommissioning liability is evaluated for financial assurance, the presence of a Tier 1 company in the property's chain of title is sufficient to avoid a requirement to provide additional financial assurance. If a Tier 1 company is not in the chain of title, additional financial assurance may be required unless the operator can demonstrate that the net present value of the proved oil and gas reserves on the lease exceeds three times the decommissioning cost associated with production of those reserves. **Table 7** and **Table 8** show liability by tiers and corresponding credit ratings used for this regulatory analysis.

Bond Premiums: BOEM assumes that bond premiums are reflected in the credit rating of the principal lessee or holder. Credit ratings are used to estimate the premium a company may pay for a decommissioning bond from a surety company. The bond cost factor used for this analysis is the sum of a bond's annual premium and the cost of idling capital required as collateral. For investment grade companies, this cost can range from as low as $5.00 to more than $21.75 per $1000 of bond face value. Sub-investment grade and speculative companies can be charged as high as $83.13 per $1000. BOEM is not estimating bond premiums for companies in bankruptcy proceedings or companies disqualified by BOEM from operating on the OCS pursuant to 30 CFR 550.135 & 550.136. Companies in these categories are likely unaffected by this rulemaking at this point. The decommissioning liability is accounted for completeness' sake, but does not contribute to the rule's cost savings estimate. Any premium payment is speculative and ultimately does not affect the regulatory analysis.

Table 6 Annual Surety Bond Cost per Thousand$ of Bond Value[6]

Surety Bond Premium Rate (Percent)	Annual Premium per Thousand Dollars of Bond Value (Dollars)	Collateral Requirement (Percent of Bond Value)	Collateral Requirement (Dollars per Thousand Dollars of Bond Value)	Annual Charge for Undrawn LC Balance (Percent)	Annual Charge for Undrawn LC Balance (Dollars per Thousand Dollars of Bond Value)	Total Annual Cost , Premium + Collateral (Dollars per Thousand Dollars of Bond Value)
Strongest Investment Grade						
0.50%	5.00	0.00%	-	n/a	n/a	5.00
0.75%	7.50	0.00%	-	n/a	n/a	7.50
1.00%	10.00	0.00%	-	n/a	n/a	10.00
Investment Grade						
1.00%	10.00	10.00%	100.00	1.75%	1.75	11.75
1.25%	12.50	10.00%	100.00	1.75%	1.75	14.25
1.50%	15.00	10.00%	100.00	1.75%	1.75	16.75
1.75%	17.50	10.00%	100.00	1.75%	1.75	19.25
2.00%	20.00	10.00%	100.00	1.75%	1.75	21.75
Speculative						
2.00%	20.00	25.00%	250.00	1.75%	4.38	24.38
2.25%	22.50	25.00%	250.00	1.75%	4.38	26.88
2.50%	25.00	25.00%	250.00	1.75%	4.38	29.38
2.75%	27.50	35.00%	350.00	1.75%	6.13	33.63
3.00%	30.00	35.00%	350.00	1.75%	6.13	36.13
Highly Speculative						
5.00%	50.00	50.00%	500.00	1.75%	8.75	58.75
7.00%	70.00	75.00%	750.00	1.75%	13.13	83.13

Table 6 presents the underlying bond cost estimates used to inform the premiums associated with the credit ratings used in this analysis.[7] For purposes of this analysis, *Strongest Investment Grade* is AAA to A-; *Investment Grade* is BBB+ to BBB-; *Speculative* is BB+ to B-, and *Highly Speculative* is CCC+ and below. If a company is not rated by a credit agency or by BOEM, this analysis estimates a bond cost using an average of the speculative and highly speculative bond costs weighted based on the distribution of BOEM's Tier 2 liability portfolio.

OCS Liabilities: The liability data used in this analysis originates from the portfolio of structures, wells, and pipelines in the OCS installed under BOEM/BSEE authority. BSEE assigns a decommissioning cost to each structure, well, or pipeline at the time of installation and periodically updates these estimates. BSEE's decommissioning estimate is based on how much

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[6] "Charge for Undrawn LC Balance" is the cost to maintain a line of credit, often a financial vehicle used to satisfy collateral requirements.

[7] Scully Capital. 2018. *Cost of Decommissioning Surety Bonds for Offshore Oil and Gas Projects*. United States Department of the Interior, Bureau of Ocean Energy Management. Contract No. M16PC00006. See rulemaking docket BOEM-2018-0033.

it would cost the Government to perform decommissioning, if necessary. The assigned liability amount is the responsibility of the current lessee or grant holder.[8] BOEM's current practice requires additional security only for properties with a single, Tier 2 owner, but continues to hold any bonds or other security provided to BOEM prior to 2016.

To calculate the costs of the proposed regulation, this liability portfolio is first divided into Tier 1 and Tier 2 property categories based on the presence or absence of a Tier 1 company in the property's chain of title. Any property with a Tier 1 company in the chain of title or as a current lessee/grant holder, is a Tier 1 property. Liability classified as Tier 1 requires no additional security under the proposed action. Tier 2 properties are further divided into sole liability properties and joint liability properties categories. A Tier 2, sole-liability property is one owned by a single Tier 2 company; i.e., there are no Tier 1 co- or predecessor lessees or grant holders in the ownership history. In this category, lessees and grant holders have already posted additional security under the current regulations and that bonding is considered a baseline practice. A Tier 2 joint liability property has more than one liable company, but no Tier 1 company in the chain of title or as a current lessee or grant holder. This proposed rule may require additional security for a decommissioning liability held only by Tier 2 companies, regardless of how many Tier 2 companies are in the property's chain of title. While the proposed rule maintains flexibility to address Tier 2 companies on a case-by-case basis to best protect the interests of the American taxpayers, this analysis assumes that BOEM will require additional financial assurance for a decommissioning liability held only by Tier 2 companies that do not have sufficient reserves (see **reserve assumptions**). The bonding cost for covering this liability is considered an incremental regulatory burden required by the proposed rule. Together, joint and sole Tier 2 liabilities make up the total amount of additional security that would be required under the proposed regulation.

Within the Tier 1 (**Table 7**), Sole Tier 2 (**Table 10**), and Joint Tier 2 (**Table 11**) categories, liability is further subdivided by credit ratings, based on the ratings assigned to the current lessee or grant holder, since this is the entity that would be required to post a bond. In the case of multiple owners, the liability is shared among the owners. While only one bond is

[8] Under BOEM and BSEE regulations, liability of each lessee and ROW and RUE grant holder liability is "joint and several," but this table does not assign full costs to each.

provided for a liability, the analytical approach used for this analysis assumes owners share the bonding cost among all the partners equally.[9] BOEM uses the assigned credit rating to determine the bond pricing rate needed to calculate the amount it would cost (i.e., in bond premiums) to cover the liability in each credit rating.

Existing Bonds. BOEM has accumulated an existing portfolio of bonds to date (see **Table 13**). Despite the increased bonding requirements in the proposed rule over the baseline, the face value of the existing portfolio exceeds the value of bonding that would be required under the proposed rule. This would likely lead to a number of facilities and properties, mostly those with current Tier 2 owners but formerly owned by a Tier 1 company, having their existing bonds canceled under the proposed action. While BOEM would evaluate each company's liability on a case-by-case basis, this analysis reconciles the total value of bonds currently posted by a company with the bonding required for the company under the proposed action. The difference in bond premiums between the current bond portfolio and the required bond portfolio under the proposed action is used to calculate the overall bond premium costs or cost savings.

Reserve Assumptions: If an OCS property requires additional bonding based on a credit rating analysis, the proposed rule would provide that the additional security would still not be required if the net present value of the lease reserves exceeds three times the cost of the decommissioning associated with the production of those reserves. The lessee would have the burden to submit the technical information that BOEM would require to assess the reserves.

BOEM proposes to use the following assumption for its reserves analysis:

- Qualifying reserves are 1P reserves (Proved Developed Producing, Proved Developed Non-Producing, and Proved Undeveloped) measured by the Securities and Exchange Commission (SEC) Present Value Pricing Methodology.

[9] BOEM tried to distribute the bonding cost among the owners in proportion to the percentage of record title ownership rather than equally. Due to the manner in which liability is assigned (by well, facility, pipeline segment) and the manner that bonding is managed (by lease and also includes operating rights owners) this was not possible to assess in a timely manner for this analysis. Because the bond premiums within Tier 2 do not vary by orders of magnitude, BOEM believes the estimates are reasonably close to the result expected if allocated by percentage of ownership. BOEM will work to more accurately assign the bonding cost in proportion to ownership for the final rule.

This regulatory analysis does not adjust the Tier 2 bonding estimates in **Table 8**, **Table 10** or **Table 11** for select deepwater properties that are estimated to have at least "3X" reserves. The results of the analysis for this reserve adjustment is shown in **Table 16**.

Forecast Horizon: Adhering to the guidance in OMB Circular A-4, "Regulatory Analysis," this IRIA presents an estimated annual stream of benefits and costs expected to result from the proposed rule. The first year in this stream is the year in which the rule will begin to have effects (the effective date in the published final rule), which was assumed to be 2019 at the time this analysis was conducted; this will be re-evaluated and updated for the final rule analysis. BOEM considered a number of factors when determining how far into the future to forecast the impacts. The financial health of lessees and grant holders is a primary basis for the compliance cost and cost savings estimated in this proposed rule. While specific lessee and grant holder financial health is uncertain over the long-term and heavily dependent on market conditions, BOEM assumes the aggregate financial profile of affected lessees and grant holders will remain consistent. Additionally, offshore oil and gas facilities typically have a long lifecycle, often decades, and current regulations mandate decommissioning at the end of their useful life. Consequently, the economic effects from this proposed rule may affect existing offshore facility liabilities for many years and may not be fully captured if BOEM's time horizon for analysis is too short. Due to this long time horizon of impacts, the availability of facility decommissioning estimates from BSEE, and given the certainty of decommissioning even if not for many years, BOEM has selected to forecast 20 years, through 2038, concluding that it is a suitable time horizon to reasonably capture all the significant benefits and cost savings likely to result from the proposed rule. Activity beyond 20 years is more uncertain and does not significantly affect the discounted quantitative results.

Third-Party Guarantees: BOEM assumes that some lessees and grant holders will need a guarantee because they either do not have a credit rating or do not have their own audited financial statements. BOEM assumes that the parent entity of such subsidiary lessees and holders will qualify as a guarantor under the proposed rule. The proposed rule eliminates the requirement that a guarantor provide an unlimited guarantee covering all obligations on the lease or grant and simplifies the financial analysis (credit rating criteria only) to be a qualified guarantor. Given these provisions and that BOEM has received third-party guarantees from corporate parents in the past under more stringent regulatory provisions, BOEM assumes the parent company will continue to provide guarantees for their subsidiaries and continue to qualify to do so.

BOEM will rely upon existing guarantees and guarantees for which the period of liability has been terminated (as a result of the sale of the asset or otherwise). Under the existing regulations and the proposed rule, guarantors remain liable for obligations that have already accrued after the termination of the period of liability. BOEM would not require additional security for liabilities covered by such Tier 1 guarantees. However, BOEM would require additional security for any liabilities created after the termination of the period of liability of the guarantee if the lease or grant is held by a Tier 2 company.

For those Tier 2 lessees and grant holders with decommissioning liability, BOEM would require additional security for liability that is not also owed by either:

a) A liable Tier 1 predecessor; or

b) A liable predecessor that has a guarantee from a Tier 1 guarantor (i.e. a guarantor that meets the credit rating criteria in the proposed rule).

When the lessee or grant holder was not the entity with a credit rating, BOEM evaluated whether a third-party guarantee existed with a corporate parent or other entity and the credit rating of the guarantor.

III. Costs and Cost Savings of the Proposed Rule

This section presents the expected proposed rule compliance costs and cost savings compared to the baseline. The proposed action would result in a change from the baseline. As noted in **Table 4**, most of the regulatory changes are expected to be no cost or cost neutral provisions. However, amendments to provisions in 556.901(d), 550.166(d), and 550.1011(d) would increase or decrease the compliance burdens and costs to the regulated industry compared to the baseline. To summarize the cost savings of these specific provisions, BOEM considered the estimated annualized average cost savings as well as 10- and 20-year discounted totals (in 2018 dollars) to estimate the present value of the costs. In accordance with OMB guidance on conducting regulatory analysis (OMB Circular A-4, "*Regulatory Analysis*," 2003), BOEM used discount rates of 3 and 7 percent to calculate the discounted net present value of the savings of the proposed rule. The annualized costs and cost savings estimates for E.O. 13771 follow OMB guidance and calculation methodologies.

BOEM estimates that the information collection burdens for the proposed rule (on a net basis) are very close to the same as those for the existing regulatory framework. The proposed rule preamble provides additional information on information collection burdens. The proposed amendments would add limited new reporting, recordkeeping, or other administrative compliance requirements. For example, BOEM expects companies to have reserves information available as a matter of those companies' general day-to-day operations; however, there would likely be a nominal administrative expense involved in submitting these reserve reports to BOEM in an appropriate format. Companies seeking to avoid the requirement to post supplemental financial assurance already provide BOEM audited financials as part of that process and so, this would not be an incremental expense. The company could also choose to avoid this expense by furnishing financial assurance instead. BOEM expects very few companies to incur this expense solely to avoid having to provide additional security. Other companies (likely most companies) would realize reduced paperwork burdens due to the simplified evaluation of the need for financial assurance for lessees and grant holders.[10] Most other proposed changes are either textual clarifications, or remove or reduce existing compliance burdens.

The most significant single change in this proposed rule is that BOEM would explicitly consider the credit rating or audited financial statements of the lessee or grant holder, as well as any co-owners, and any predecessors, when determining the need for current lessees and grant holders to provide additional security. This change recognizes the mitigation of risk already provided by the joint and several liability of co-lessees and predecessors.

[10] These arise from, among other changes, the reduction in the number of criteria evaluated, elimination of the need for audited financial information for those with qualifying credit ratings, and elimination of the need to provide proved reserve information if additional security is not required because of a credit rating or proxy credit rating.

Estimated Compliance Costs and Cost Savings of the Proposed Rule

BOEM's estimate for the incremental compliance costs and cost savings rests upon multiple assumptions. These analytical and baseline assumptions are described in previous section

II. Assumptions and Analytical Methodology. This section presents BOEM's methodology and calculations for the incremental compliance cost and cost savings for the proposed action. A summary of this proposed rule's cost savings can be found in **Table 1**, **Table 18** and **Table 19**.

Table 7 through **Table 14** on the following pages present BOEM's calculation methodology to estimate the bonding required and bonding that is expected to be canceled if the proposed action is implemented. To begin, BOEM presents in **Table 7** and **Table 8** a summary of the entire population of Tier 1 and Tier 2 decommissioning liabilities and the company credit rating of the current lessees and grant holders from BOEM database as of June 2018. Current lessees and grant holders are required to decommission OCS properties with associated decommissioning liabilities shown in these tables. BSEE's current estimate of total OCS decommissioning liabilities is $32.8 billion as shown in **Table 9**.

The decommissioning liability shown in **Table 7** (Tier 1) is for companies in either Tier 1 or with a Tier 1 predecessor or co-lessee. The Tier 1 liabilities shown in **Table 7** do not require additional security under this proposed action.

As described in previous section **II. Assumptions and Analytical Methodology,** the Tier 2 liabilities shown in **Table 8** do require additional security under this proposed action. The Tier 2 liabilities are further separated into sole and joint liabilities in **Table 10** and **Table 11**.

Table 7 All OCS "Tier 1" OCS Decommissioning Liabilities by Company Credit Rating (2018)

	Rating of Current RT Owners	GOM Lease Liability	GOM ROW Liability	GOM RUE Liability	Pacific Liability	Alaska Liability	Total Liability
Total Tier 1 Liability *(No bonding required under the proposed rule; includes Tier 2 liability with Tier 1 predecessor or guarantor)*	AAA	$95,312,012	$0	$0	$0		$95,312,012
	AA+	$1,149,273,212	$43,527,534	$0	$459,458,902		$1,652,259,648
	AA	$357,508,162	$9,276,242	$3,954,437	$0		$370,738,841
	AA-	$1,703,454,237	$43,063,740	$28,776,333	$0		$1,775,294,310
	A+	$3,527,938,664	$199,969,104	$0	$0		$3,727,907,768
	A	$884,198,867	$156,050,515	$17,833,814	$0		$1,058,083,196
	A-	$2,411,807,607	$209,638,619	$135,275,669	$0		$2,756,721,895
	BBB+	$869,290,150	$243,407,936	$23,693,144	$0		$1,136,391,230
	BBB	$3,438,090,977	$313,494,013	$103,356,382	$0		$3,854,941,372
	BBB-	$2,127,954,619	$237,864,780	$39,067,300	$26,500,000		$2,431,386,699
	BB+	$91,598,624	$93,684,665	$3,768,361	$0	$41,500,000	$230,551,650
	BB	$621,361,438	$38,956,983	$6,374,448	$37,331,704		$704,024,573
	BB-	$1,639,962,346	$139,628,771	$53,120,310	$0		$1,832,711,427
	B+	$926,715,337	$10,008,697	$16,444,534	$46,980,363		$1,000,148,931
	B	$602,343,136	$17,447,548	$0	$0		$619,790,684
	B-	$2,400,425,031	$118,564,292	$133,074,490	$0		$2,652,063,813
	CCC+	$50,038,025	$0	$7,155,741			$57,193,766
	CCC	$596,835,388	$42,340,034	$7,423,621	$0		$646,599,043
	CCC-	$9,937,125	$0	$0	$0		$9,937,125
	Not Rated	$2,334,763,313	$77,783,835	$48,894,096	$510,981,363		$2,972,422,607
	Bankruptcy	$72,244,760	$1,061,100	$0			$73,305,860
	Disqualified	$2,008,973	$0	$0			$2,008,973
	SUBTOTAL:	**$25,913,062,003**	**$1,995,768,408**	**$628,212,680**	**$1,081,252,332**	**$41,500,000**	**$29,659,795,423**

Table 8 All OCS "Tier 2" Decommissioning Liabilities by Company Credit Rating (2018)

		Gulf of Mexico OCS					
	Rating of current RT Owners	**Lease Liability**	**ROW Liability**	**RUE Liability**	**Pacific Liability**	**Alaska Liability**	**Total Liability**
Total Tier 2 liability *(Total liability required to be covered under the proposed rule)*	B+	$375,289,785	$40,494,097	$4,619,900	$0	$0	$420,403,782
	B	$153,948,222	$41,863,963	$7,850,214	$0	$0	$203,662,399
	B-	$208,671,212	$48,432,273	$24,687,402	$0	$0	$281,790,887
	CCC+	$29,372,902	$6,987,743	$0	$0	$0	$36,360,645
	CCC	$77,597,610	$19,917,193	$0	$0	$0	$97,514,803
	CCC-	$0	$0	$0	$0	$0	$0
	Not Rated	$1,399,481,913	$181,537,208	$26,232,704	$264,867,460	$0	$1,872,119,285
	Bankruptcy	$30,568,579	$21,032,178	$0	$147,054,037	$0	$198,654,794
	Disqualified	$450,661					$450,661
	SUBTOTAL:	**$2,275,380,883**	**$360,264,655**	**$63,390,220**	**$411,921,497**	**$0**	**$3,110,957,255**

Table 9 presents the summation for the Tier 1 and Tier 2 decommissioning liabilities shown in **Table 7** and **Table 8**.

Table 9 Total OCS Decommissioning Liability (circa June 2018)

	GOM Lease Liability	**GOM ROW Liability**	**GOM RUE Liability**	**Pacific Liability**	**Alaska Liability**	**Total Liability**
Total Tier 1 & Tier 2 Decommissioning Liability	$28,188,442,886	$2,356,033,063	$691,602,900	$1,493,173,829	$41,500,000	$32,770,752,678

The regulatory baseline is the current practice, (partial implementation of NTL No. 2016-N01) as described in the section entitled, **Baseline.** Under the baseline, BOEM required additional bond, or issued bond demands to companies for decommissioning liabilities that are the sole responsibility of a single Tier 2 company.[11] **Table 10** presents the estimated bonding premium cost for Tier 2 sole liabilities based on the Scully rates described in section **II. Assumptions** per $1,000 of liability**.** The estimated bonding premium cost for Tier 2 sole liabilities ($22.2 million in 2018), is the bonding cost assumed to be part of the regulatory baseline.

Table 10 Estimated Bonding Cost for Tier 2 Sole Liabilities (2018)[12]

		Gulf of Mexico OCS							
		Lease Liability	**ROW Liability**	**RUE Liability**	**Pacific Liability**	**Alaska Liability**	**Total Liability**	**Bond rate**	**Est. 2018 Premiums**
Sole Tier 2 Liability *(This is the rule's baseline)*	B+	$97,723,187	$5,734,091				$103,457,278	$31.43	$3,251,662
	B	$16,772,455	$8,549,376				$25,321,831	$33.78	$855,371
	B-	$6,250,382	$5,316,155				$11,566,537	$36.13	$417,899
	CCC+	$18,195,469	$6,328,048				$24,523,517	$58.75	$1,440,757
	CCC	$46,248,644	$15,469,957				$61,718,601	$66.88	$4,127,534
	CCC-						$0	$75.00	$0
	D						$0	$83.13	$0
	Not Rated	$95,897,833	$58,043,094		$140,892,196		$294,833,123	$40.93	$12,067,520
	Bankruptcy	$12,253,227	$11,610,374				$23,863,601		
	SUBTOTAL:	**$293,341,197**	**$111,051,095**	**$0**	**$140,892,196**	**$0**	**$545,284,488**		**$22,160,743**

Table 11 shows the joint Tier 2 liability that would require bonding and the bond premium costs. This table excludes the liabilities that are currently the joint and several liability of a Tier 1 co-lessee, co-grant holder, or predecessor. These Tier 1 co-owner

[11] BOEM is currently holding bonds covering Tier 2 sole liabilities shown in **Table 10**. While BOEM issued bond demands for Tier 2 sole liabilities, it has continued to hold bonds previously provided to BOEM for Tier 1 liabilities and Tier 2 joint liabilities.

[12] BOEM is not assigning a bond premium to the Bankruptcy and Disqualified categories in this and subsequent tables because liabilities in these categories are outside the scope of this regulatory analysis.

or predecessor liabilities would not require bonding under the proposed action. This table includes only the incremental bonding required under the proposed action.

Table 11 Joint Tier 2 Liabilities (2018)

		GOM Lease Liability	GOM ROW Liability	GOM RUE Liability	Pacific Liability	AK Liab.	Total Liability	Bond rate	Est 2018 Premiums
Joint Tier 2 liability *(This is the additional bonding required under the proposed rule)*	B+	$277,566,598	$34,760,006	$4,619,900			$316,946,504	$31.43	$9,961,629
	B	$137,175,767	$33,314,587	$7,850,214			$178,340,568	$33.78	$6,024,344
	B-	$202,420,830	$43,116,118	$24,687,402			$270,224,350	$36.13	$9,763,206
	CCC+	$11,177,433	$659,695	$0			$11,837,128	$58.75	$695,431
	CCC	$31,348,966	$4,447,236	$0			$35,796,202	$66.88	$2,393,931
	CCC-	$0	$0	$0			$0	$75.00	$0
	Not Rated	$1,303,584,080	$123,494,114	$26,232,704	$123,975,264		$1,577,286,162	$40.93	$64,558,323
	Bankruptcy	$18,315,352	$9,421,804	$0	$147,054,037		$174,791,193		
	Disqualified	$450,661					$450,661		
	SUBTOTAL:	**$1,982,039,686**	**$249,213,560**	**$63,390,220**	**$271,029,301**	**$0**	**$2,565,672,767**		**$93,396,863**

If the Tier 2 sole liabilities (**Table 10**) and Tier 2 joint liabilities (**Table 11**) are summed, the totals will equal the Tier 2 liabilities shown in **Table 8**.

The proposed rule would require additional bonds or other financial assurance to be posted for all liabilities with no liable owners in the chain of title other than Tier 2 companies (Tier 2 joint liabilities). BOEM has estimated an incremental cost ($93.4 million in 2018) for these bonds in **Table 11**. The $93.4 million is a compliance cost of the proposed action.

Table 12 summarizes the distribution of all $32.8 billion (**Table 9**) in OCS decommissioning liabilities.

Table 12 Decommissioning Liability under Proposed Action (2018)

		Sole Liability Properties	**Joint Liability Properties (Co-lessee or Predecessor)**
Company Tier (Co-lessee or Predecessor)	**Tier 1 (BB- or above)**	$29,659 million liability No bonding required (**Table 7**)	
	Tier 2 (B+ or below)	$545 million liability ($22.2 million annual bond cost in baseline, **Table 10**)	$2,565 million liability ($93.4 million annual bond cost assigned to cost of rule, **Table 11**)

Under current implementation (baseline), as well as the proposed action, no bond demands are issued for OCS properties that have a Tier 1 company in the chain of title. However, BOEM currently holds bonds for companies that fall into this category. **Table 13** shows the inventory of bonds currently held by BOEM as of June 2018. BOEM is holding $3.3 billion in bonds with estimated 2018 annual premiums of $106.9 million. Most of these bonds were provided to BOEM prior to the issuance of NTL No. 2016-N01. BOEM has continued to hold these bonds during the partial implementation of NTL 2016-01. Under the proposed action, any OCS liability backed by a Tier 1 company, either as a lessee, co-lessee, grant holder, co-grant holder, or predecessor would not require additional financial security. Therefore, if the proposed action is implemented, BOEM would cancel all additional security covering any property with a Tier 1 lessee, grant holder, predecessor or guarantor. The net face value of bonds that BOEM estimates would be canceled in excess of that demanded from lessees and/or grant holders is shown in **Table 14**.

Table 13 Bonds Currently Held by BOEM (circa June 2018)

		Gulf							
		Lease Bonds	**ROW Bonds**	**RUE Bonds**	**Pacific Bonds**	**Alaska Bonds**	**Total Bonds**	**Bond Rate**	**2018 est. Bond Premiums**
Current Bonding Portfolio *(Bonds currently held by BOEM)*	AAA	$0					$0	$0.00	$0
	AA+		$8,025,000				$8,025,000	$5.83	$46,813
	AA	$518,183,868	$5,987,500	$2,600,390			$526,771,758	$6.67	$3,511,812
	AA-	$19,331,921	$18,849,168				$38,181,089	$7.50	$286,358
	A+	$11,479,500	$22,452,578				$33,932,078	$8.33	$282,767
	A		$32,208,250				$32,208,250	$9.17	$295,242
	A-	$12,639,774					$12,639,774	$10.00	$126,398
	BBB+		$124,783,527	$13,377,675			$138,161,202	$11.75	$1,623,394
	BBB	$16,550,000					$16,550,000	$16.75	$277,213
	BBB-	$21,394,500	$1,595,000	$5,545,000			$28,534,500	$21.75	$620,625
	BB+		$95,960,000	$1,760,000			$97,720,000	$24.38	$2,382,414
	BB	$1,000,000					$1,000,000	$26.73	$26,730
	BB-	$61,190,000	$35,665,813			$0	$103,055,813	$29.08	$2,816,567
	B+	$127,554,691	$28,201,643	$3,735,000			$159,491,334	$31.43	$5,012,813
	B	$308,128,565	$13,208,735	$1,235,000			$322,572,300	$33.78	$10,896,492
	B-	$113,206,792	$9,506,275	$37,638,000			$160,351,067	$36.13	$5,793,484
	CCC+	$56,245,000	$1,510,006	$165,000			$75,662,535	$58.75	$3,402,800
	CCC	$241,321,942	$8,324,585	$23,000,000			$272,646,527	$66.88	$18,233,691
	CCC-	$0					$0	$75.00	$0
	Not Rated	$802,942,455	$185,020,135	$14,405,000	$248,969,722	$0	$1,245,137,312	$40.93	$51,217,236
	Other[13]	$12,954,500	$15,618,724	$200,000	$0	$0	$28,773,224		
	Bankruptcy	$8,175,000			$17,742,529		$25,917,529		
	Disqualified	$3,098,281					$3,098,281		
	TOTAL:	**$2,335,396,789**	**$606,916,939**	**$103,661,065**	**$266,712,251**	**$0**	**$3,312,687,044**		**$106,852,849**

[13] "Other" includes bonds that are uncategorized and could not be classified at the time of this analysis. BOEM expects to assign these bonds to credit rating categories for the final regulatory analysis.

Table 14 Estimate of Bond Reconciliation under the Proposed Rule (2018)[14]

		GOM Lease Bonds	GOM ROW Bonds	GOM RUE Bonds	Pacific Bonds	AK	Total Bonds	Bond Rate	Est. 2018 Bond Reconciliation
Difference in bonding portfolio and required bonds under proposed rule. *(Reconciliation between current bonding portfolio and required bonding under proposed rule)*	AAA	$0	$0	$0	$0	$0	$0	$0.00	$0
	AA+	$0	-$8,025,000	$0	$0	$0	-$8,025,000	$5.83	-$46,813
	AA	-$518,183,868	-$5,987,500	-$2,600,390	$0	$0	-$526,771,758	$6.67	-$3,511,812
	AA-	-$19,331,921	-$18,849,168	$0	$0	$0	-$38,181,089	$7.50	-$286,358
	A+	-$11,479,500	-$22,452,578	$0	$0	$0	-$33,932,078	$8.33	-$282,767
	A	$0	-$32,208,250	$0	$0	$0	-$32,208,250	$9.17	-$295,242
	A-	-$12,639,774	$0	$0	$0	$0	-$12,639,774	$10.00	-$126,398
	BBB+	$0	-$124,783,527	-$13,377,675	$0	$0	-$138,161,202	$11.75	-$1,623,394
	BBB	-$16,550,000	$0	$0	$0	$0	-$16,550,000	$16.75	-$277,213
	BBB-	-$21,394,500	-$1,595,000	-$5,545,000	$0	$0	-$28,534,500	$21.75	-$620,625
	BB+	$0	-$95,960,000	-$1,760,000	$0	$0	-$97,720,000	$24.38	-$2,382,414
	BB	-$1,000,000	$0	$0	$0	$0	-$1,000,000	$26.73	-$26,730
	BB-	-$61,190,000	-$35,665,813	$0	$0	$0	-$103,055,813	$29.08	-$2,816,567
	B+	$247,735,094	$12,292,454	$884,900	$0	$0	$260,912,448	$31.43	$8,200,478
	B	-$154,180,343	$28,655,228	$6,615,214	$0	$0	-$118,909,901	$33.78	-$4,016,776
	B-	$95,464,420	$38,925,998	-$12,950,598	$0	$0	$121,439,820	$36.13	$4,387,621
	CCC+	-$26,872,098	$5,477,737	-$165,000	$0	$0	-$39,301,890	$58.75	-$1,266,612
	CCC	-$163,724,333	$11,592,608	-$23,000,000	$0	$0	-$175,131,725	$66.88	-$11,712,226
	CCC-	$0	$0	$0	$0	$0	$0	$75.00	$0
	Not Rated	$596,539,458	-$3,482,927	$11,827,704	$15,897,738	$0	$620,781,973	$40.93	$25,408,606
	Other								
	Bankruptcy								
	Disqualified								
	SUBTOTAL:	**-$66,807,365**	**-$252,065,738**	**-$40,070,845**	**$15,897,738**	**$0**	**-$343,046,210**		**$8,704,758**

[14] A negative value is the net amount of bonding that would be canceled and represent a cost savings. A positive number indicates net additional amount of bonding that would be required under the proposed rule. The values in this table do not reflect potential adjustments for 3X reserves.

Adjustment for Reserves

BOEM proposes not to require additional security for a lease if the net present value of proved oil and gas reserves on a lease exceeds three times the cost of the decommissioning associated with the production of those reserves ("3X reserves"). To estimate the impact of, or possible reduction in bonding from, this proposal, BOEM first identified the leases that have only Tier 2 lessees, co-lessees, and predecessor lessees (Tier 2 leases). To estimate the Tier 2 liabilities that might not be required to provide additional security, BOEM estimated the proved reserves and compared the estimated proxy reserve value to decommissioning liabilities.[15] BOEM is using a proxy estimate for this regulatory analysis, since updated SEC *Present Value Pricing Methodology* reserve estimates are not currently available for these OCS leases.

[Proxy] Calculation Methodology: For each lease, the annual reported oil and gas production is multiplied by a set of price and cost assumptions (see **Table *15***) to obtain the estimated net annual income for the lease. BOEM then calculated a ratio of the net income to the decommissioning cost estimate (see **Equation 1**). A ratio of 3 or greater indicates that three years of net income from production would equal or exceed the decommissioning cost. If a lease had a ratio of 3:1 or greater, then BOEM considered it highly likely that the lease would meet the proposed 3X reserve threshold and additional security would not be required.

Table 15 Cost and Price Assumptions for Valuing Proved Reserves

Product	Sales Price*	Production Cost**
Oil	$62.75 / barrel	$45 / barrel
Gas	$2.88 / mcf	1.14 / mcf

* Prices are based on SEC pricing June 2017 through July 2018
** Cost assumptions are based on an EIA report that examined 4 deepwater projects that started in 2014-2015: https://www.eia.gov/analysis/studies/drilling/pdf/upstream.pdf.

[15] BOEM focused the reserve analysis on GOM deepwater leases that represented a significant share of the $2.5 billion in Tier 2 liabilities. While there may be other lease liabilities that could be excluded from providing additional security under the 3X reserves provision, the identified GOM deepwater leases were those with sufficient production and other information available for BOEM to estimate proved reserves.

Equation 1

$$Net\ Income\ to\ Decommissioning\ Ratio = \frac{Annual\ Net\ Income}{Decommissioning}$$

Based on these proxy price, cost, and reserve assumptions, BOEM estimates that at least 21 deepwater Tier 2 leases would have a net present value of proved reserves greater than three times the cost of decommissioning associated with the production of those reserves. These 21 leases have a combined decommissioning liability of $555 million and BOEM estimates that owners of these leases would not be required to provide additional security under the proposed rule.

In an effort to further validate the production to decommissioning ratio as a proxy for sufficient reserves, BOEM evaluated Resource Evaluation's 2016 Annual Reserve Report (adjusted for two years of additional production), as well as publicly available statements from Tier 2 lessees.[16] The results affirmed economically significant reserves were associated with the 21 leases and would meet the proposed 3X reserves to decommissioning ratio. **Table 16** displays the estimated 2018 liabilities that lessees would not be required to cover by additional security due to the 3X reserves provision.

[16] https://www.boem.gov/Reserves-Inventory-Program/, accessed 2/1/2019

Table 16 Tier 2 Liabilities Backed by 3X Reserves (est. 2018)

	Estimated 2018 Tier 2 Lease Liability Backed by 3X Reserves	**Bond Rate ($)**	**2018 est. Bond Premiums**
B+	$178,604	31.43	$5,614
B	$5,894,252	33.78	$199,108
CCC	$178,604	66.88	$11,945
Not rated	$549,127,332	40.93	$22,475,782
	$555,378,792		**$22,692,448**

Summary of Compliance Costs and Cost Savings under the Proposed Rule

Under the proposed rule, BOEM is anticipating that (net) $343 million in bonds would be cancelled. While BOEM is estimating it would cancel approximately $343 million in bonds, BOEM would also issue bond demands for uncovered Tier 2 liabilities. The bond demands would be issued to those companies with weaker credit ratings and are estimated to cost companies more per face value unit than the bonds being cancelled that were provided by stronger companies. **Table 17** summarizes the overall costs and savings of the rule. BOEM estimates the 2018 baseline bonding cost for Tier 2 sole-liability properties to be $22.2 million and estimates $93.4 million in incremental required bonding for Tier 2 joint liability properties. However, as noted earlier, BOEM has accumulated an existing portfolio of financial assurance over many years. This portfolio consists of bonds that may or may not be required under the proposed rule and its amount exceeds BOEM's proposed financial assurance requirement estimates. In the absence of a facility-by-facility audit that matches the existing portfolio to the estimates, this methodology compares the overall amounts of bonding expected under the proposed rule (adjusting for the amount of financial assurance avoided due to the 3x reserves provision) against the amount of financial assurance BOEM currently holds to determine the bottom line effect of this proposed rule. The result is a net decrease in financial assurance and associated premiums, and thereby net savings, of $14 million after the reconciliation of newly required financial assurance and the release of bonds that would no longer be required by BOEM.

Table 17 Effects of Proposed Rule on Lessee and Grant Holder Bonding Premiums (2018)

Required bond premiums for Tier 2 Sole-Liability Properties (**Table 10**) [***This bonding cost is part of the regulatory baseline.***]	-$22,160,743
Estimated additional 2018 bond premiums for Tier 2 Joint Liability Properties (**Table 11**). [***This is an additional compliance cost of the proposed rule.***] BOEM is currently holding many of the bonds that will cover this liability.	-$93,396,863
Estimated required bond premiums under the proposed Tier 2 criteria **(Table 10 + Table 11).**	**-$115,557,607**
Reduced bond requirement based on 3X reserves of Tier 2 bonding (**Table 16**)	$22,692,448
Estimated total required bond premiums under the proposed rule	**-$92,865,159**
Adjust by estimated bond premiums for all bonds currently held by BOEM (**Table 13**)	$106,852,849
Estimated Savings of Proposed Rule ($115,557,607 -$22,692,448 - $106,852,849 = -$13,987,690). **[This is the estimated 2018 cost of the proposed rule.]**	**$13,987,690**

The calculations and estimates in **Table 7** through **Table 17** are based on the decommissioning liability estimates, bonds held by BOEM, greater than 3X reserve estimates and company credit profiles as of June 2018. BOEM estimates the final rule would be effective in calendar year 2019 and is estimating net compliance cost savings for 20 years or until 2038. As mentioned in the **II. Assumptions and Analytical Methodology** section, BOEM estimates OCS decommissioning liabilities would decline over the next couple of decades as idle wells, structures and pipelines are decommissioned. **Table 18** and **Table 19** present the estimated 10- and 20-year annualized and NPV rulemaking cost savings at 7 and 3 percent discounting, respectively.

Table 18 Proposed Rule Cost Savings Estimate (7 percent discounting)

10-Year (7% discounting)	
Annualized Costs:	$16,473,168
Net Present Value Costs:	$115,700,639

20-Year (7% discounting)	
Annualized Costs:	$16,988,417
Net Present Value Costs:	$179,975,527

Table 19 Proposed Rule Cost Savings Estimate (3 percent discounting)

10-Year (3% discounting)	
Annualized Costs:	$16, 584,362
Net Present Value Costs:	$141,467,969

20-Year (3% discounting)	
Annualized Costs:	$17,191,929
Net Present Value Costs:	$255,772,485

IV. Public Impact of the Proposed Rule (Benefits)

This proposed rule is designed to require no more bonding than needed to ensure that taxpayers remain protected from the costs of decommissioning not performed by the responsible party. This proposed rule explicitly considers the presence of a financially strong predecessor with accrued obligations when determining whether to require financial assurance covering decommissioning obligations from a current lessee or grant holder. Under the proposed rule, the risk that the government would be responsible for the costs associated with decommissioning is negligible because financially viable co-lessees and predecessors remain jointly and severally liable for accrued decommissioning obligations. The proposed approach relies on the fact that the more companies responsible for the liability (i.e. in the chain of title), the lower the risk that the public would need to assume the decommissioning liabilities, and reduces bonding requirements appropriately. The presence of a company with a Tier 1 designation in the chain of title would reduce the risk so significantly that the risk would become negligible. BOEM requests comments on whether there is a greater likelihood of moral hazard when there are more companies in the chain of title or there is a Tier 1 company.

Table 20 provides examples of quantitative risk using **Equation *2***. Quantitative risk is the same as expected consequence in **Equation *2***. The result is illustrated in **Table 20** using 1-year default probabilities for a $1MM decommissioning liability.

Equation 2

Expected Consequence = Decommissioning Liability x Probability of Default

Table 20 Default Risk Examples

One Tier 2 Company	**Two Companies (one Tier 2 Company with Tier 1 Predecessor)**	**Two Tier 1 Companies**
Tier 2 sole liability = $1MM x 0.27 (S&P) Default Probability CCC) = $270,000 quantitative risk	$1MM x 0.27 (Default Probability CCC) x 0.0002 (Default Probability AA) = $54 quantitative risk	$1MM x 0.0049 (Default Probability BB+) x 0.0002 (Default Probability AA) = $0.98 quantitative risk

Though predecessor companies have always been held responsible for decommissioning liabilities if the current owner is incapable of meeting those obligations, the proposed rule would directly consider predecessor companies when determining financial assurance requirements. This proposed change reduces the number of properties that would need additional bonding without materially affecting risk. As shown in **Table 20**, having a Tier 1 company in the chain of title would reduce the risk to 0.02% of what it would have been with just the Tier 2 company with sole liability properties. Risk is reduced as additional companies are included in the chain of title, either as co-lessees or predecessors, and even more if the additional companies are Tier 1.

The following Moody’s and S&P tables illustrate the annual estimated historical risk for all rated companies (**Table 21** and **Table 22**). The commercial company credit ratings assigned by credit rating agencies provide investors a consistent and objective evaluation of a company’s capability to meet its debt obligations. The credit rating considers the company's current financial condition and the industry’s performance and risk conditions. The historical default rates in these tables are not petroleum industry specific. As mentioned earlier, however, BOEM believes these default rates are reasonable proxies for companies with corresponding credit ratings holding OCS decommissioning obligations. This is because credit ratings issued by credit rating agencies act as a consistent assessment of creditworthiness and as a pricing benchmark for relative value across industry sectors.

Table 21 Moody's Average Cumulative Issuer-Weighted Global Default Rates by Letter Rating, by Year After Issuer Credit Rating, (10 years)[17]

Average Cumulative Issuer-Weighted Global Default Rates By Letter Rating, 1970-2017

Rating	1	2	3	4	5	6	7	8	9	10
Aaa	0.00%	0.01%	0.01%	0.03%	0.08%	0.14%	0.19%	0.25%	0.31%	0.38%
Aa	0.02%	0.06%	0.11%	0.19%	0.29%	0.40%	0.52%	0.63%	0.71%	0.79%
A	0.05%	0.16%	0.33%	0.52%	0.74%	0.99%	1.26%	1.54%	1.85%	2.15%
Baa	0.17%	0.44%	0.77%	1.16%	1.55%	1.95%	2.35%	2.77%	3.24%	3.75%
Ba	0.92%	2.52%	4.38%	6.36%	8.20%	9.90%	11.39%	12.85%	14.34%	15.88%
B	3.45%	8.15%	12.96%	17.32%	21.31%	24.92%	28.17%	30.92%	33.42%	35.51%
Caa-C	10.22%	18.04%	24.64%	30.17%	34.67%	38.09%	41.12%	44.04%	46.76%	48.90%
IG	0.09%	0.24%	0.43%	0.66%	0.90%	1.17%	1.43%	1.71%	2.00%	2.31%
SG	4.07%	8.23%	12.17%	15.67%	18.72%	21.35%	23.65%	25.68%	27.58%	29.29%
All	1.53%	3.06%	4.45%	5.66%	6.68%	7.56%	8.32%	8.99%	9.63%	10.22%

[17] Moody's Investors Service: Annual Default Study: Corporate Default and Recovery Rates, 1920 – 2017, February 15, 2018 (exhibit 33). IG = investment grade, SG = speculative grade.

Table 22 Standard & Poor's Average Cumulative Default Rates by Letter Rating, by Year After Issuer Credit Rating (15 years)[18]

Global Corporate Average Cumulative Default Rates (1981-2017)

(%)

	--Time horizon (years)--														
Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA	0.00	0.03	0.13	0.24	0.35	0.46	0.51	0.60	0.65	0.71	0.74	0.77	0.80	0.86	0.93
AA	0.02	0.06	0.12	0.22	0.32	0.43	0.53	0.60	0.68	0.75	0.82	0.89	0.95	1.01	1.07
A	0.06	0.14	0.24	0.37	0.51	0.66	0.85	1.01	1.17	1.34	1.50	1.64	1.79	1.93	2.09
BBB	0.17	0.49	0.84	1.26	1.70	2.13	2.50	2.87	3.23	3.58	3.94	4.24	4.52	4.81	5.11
BB	0.68	2.13	3.83	5.53	7.11	8.57	9.81	10.92	11.90	12.77	13.49	14.14	14.72	15.24	15.80
B	3.59	8.25	12.26	15.44	17.88	19.88	21.48	22.76	23.90	24.95	25.84	26.53	27.15	27.75	28.34
CCC/C	26.82	36.03	41.03	43.97	46.22	47.13	48.33	49.23	50.08	50.71	51.20	51.71	52.34	52.82	52.82
Investment grade	0.10	0.26	0.45	0.68	0.92	1.17	1.40	1.61	1.82	2.03	2.23	2.40	2.57	2.73	2.91
Speculative grade	3.75	7.31	10.39	12.90	14.95	16.64	18.05	19.23	20.27	21.21	22.00	22.65	23.25	23.80	24.34
All rated	1.50	2.95	4.22	5.29	6.18	6.94	7.57	8.12	8.60	9.05	9.44	9.77	10.07	10.35	10.63

Sources: S&P Global Fixed Income Research and S&P Global Market Intelligence's CreditPro®.

Under the proposed action, BOEM would reevaluate the financial health of companies responsible for decommissioning liabilities annually and would do so more often in response to company credit rating changes, market reports, trade press, quarterly financial reports, or other information that is received throughout the year indicating such a reevaluation is necessary. In the event BOEM identifies any companies approaching financial distress, BOEM can demand supplemental financial assurance through the Regional Director's existing authority as a result of mid-year changes in financial status. Because BOEM would reevaluate company financial health, reserves, and other applicable information at least annually, and has the ability to demand financial assurance at any time it is determined to be necessary, the year-1 default risk is the value that should be used to assess individual company risk.

[18] S&P and Moody's historical default rates are not industry specific. S&P Global, 2017 Annual Global Corporate Default Study and Rating Transitions, April 5, 2018 (Table 24).

While it should be theoretically possible to estimate the quantitative risk to the taxpayer for each OCS property using credit ratings or proxy credit ratings as shown in **Table 20**, BOEM's liability data is not currently organized in a format where this risk can easily be matched to each OCS property.[19] The public can best understand the negligible risk through the example in **Table 20**. The OCS liability profiles in **Table 7** (**no** additional bonding required under proposed action) and **Table 8** (additional bonding required under proposed action) combined with the one-year default rates in **Table 21** and **Table 22** are helpful to understand the very small risk to the taxpayer. BOEM will work to improve its quantitative risk assessment for the final rule and specifically welcomes comments on this topic.

Regulatory Certainty

Upstream and midstream OCS oil and gas companies need a regulatory environment on which they can rely. The perceived uncertainty of BOEM's financial assurance regulatory environment for the last several years may be impacting OCS investment decisions. As discussed in the **Background** section, BOEM's changes and discussions of potential financial assurance changes have created regulatory uncertainty for companies. A clear understanding of BOEM's financial assurance standards and processes may incentivize OCS economic activity and provide public benefits through increased leasing revenues or other indirect economic activity.

Potential Counterproductive Impacts of Proposed Action – Moral Hazard

BOEM recognizes that some of the changes proposed in this rule could theoretically introduce a moral hazard into offshore oil and gas operations and decommissioning obligations. The concept of a moral hazard is that a party protected in some manner from risk will act differently than it would if that party did not have that protection. In the case of this rulemaking, BOEM is proposing to allow Tier 2 lessees and grant holders to forgo providing financial assurance if there are Tier 1 predecessor companies in the chain of title. This could theoretically incentivize Tier 2 companies to take greater investment risks because they are aware that they could avoid the costs of jointly held asset retirement obligations by liquidating or otherwise

[19] Each property (in most cases leases) may have multiple predecessor owners, multiple lessees and different vintages of incurred liability. The myriad of resulting combinations makes a calculated risk value not possible with BOEM's current data set.

winding down their operations by relying on a Tier 1 predecessor's operational capacity to perform accrued decommissioning obligations. In comparison, similarly situated companies that provide financial assurance must internalize future liabilities into their decision-making process. This is because companies procuring financial assurance must meet the capitalization standards imposed by the surety industry in order to qualify for financial assurance. These companies are therefore incentivized to operate more prudently and may be better positioned to meet accrued decommissioning obligations as they become due.

A regulatory framework permitting financially weaker companies to forgo the posting of financial assurance may create a private cost advantage for certain entities. Entities operating in a manner designed to transfer decommissioning obligations to predecessor companies could have lower costs of production. This could distort competition and incentivize financially weaker companies to incur investment risks they would otherwise not undertake.

BSEE is proposing a "reverse chronological" decommissioning compliance approach that would generally require it to order performance from more recent lessees in the record of title over those more distant, though all lessees would remain joint and severally liable. This compliance scheme would provide greater regulatory certainty regarding the order in which BSEE would approach lessees to meet their decommissioning obligations but would not provide the same level of financial assurance for decommissioning performance that a surety bond would ensure.

Distributional Effects - Transfers

Transfer of Decommissioning Cost

If current lessees or grant holders default on decommissioning obligations, predecessor companies become responsible for a transfer. No social welfare costs or benefits from this transfer are assumed for this regulatory impact analysis.[20] The funds used for decommissioning are not being used for a less productive purpose; only the party paying for the facility decommissioning changes. Even though these potential transfers are not considered in the

[20] There is no change in the aggregate economic activity and resources in the economy, e.g., the transfer does not directly absorb resources or create output.

proposed rule's net benefit calculation, BOEM acknowledges the design of this proposed action could theoretically make such transfers more likely.[21]

Because companies own the offshore facilities, wells, and pipelines, they are free to buy and sell offshore assets. A predecessor can require agreements with the buyer to mitigate the risk of a future decommissioning transfer. For example, the predecessor could require the acquiring company to bond to the predecessor to reduce the risk of a reversion of future liabilities. Prior to the 2014 decline of oil prices, companies selling OCS assets did not, as a matter of standard practice, require company-to-company decommissioning accounts or other financial assurances to ensure the decommissioning liability would be covered. Beginning in 2014, companies, especially larger and financially stronger companies, began protecting themselves from their potential future liability when selling assets to weaker companies, using decommissioning accounts or other risk management tools. BOEM estimates that these company-to-company financial assurance arrangements would increase if the proposed rule is adopted.

Alternatively, it could be argued that when a Tier 1 company(s) sold its offshore asset(s) to the current Tier 2 owners, the decommissioning obligations were considered in the sale price and corresponding side agreements. It has always been the case under BOEM regulations that co-lessees and predecessors remain jointly and severally liable for accrued OCS decommissioning obligations. This reduces the risk that the government (taxpayer) will be responsible for the costs associated with decommissioning. Companies selling OCS assets have always known BOEM (and its predecessor agencies) could go back to predecessor companies in the chain of title if the current owners defaulted on their decommissioning obligations.

Additional unintended consequences might stem from the proposed changes in financial assurance requirements. BOEM is anticipating millions of dollars in annualized bond premium savings for lessees and grant holders. The costs could be greater than the [cost savings] benefits if this proposed rule disincentivizes OCS activity. For example, potential additional, but unknown and unquantified costs, could include impacts to competition by Tier 1 companies avoiding farm-in or farm-out arrangements with Tier 2 companies or choosing to decommission

[21] Joint and several liability is part of the regulatory baseline. BOEM is proposing in this rulemaking to explicitly consider joint and several liability when determining financial assurance requirements.

offshore facilities at the point the project economics declined to meet a larger company's internal rate of return (IRR) or NPV threshold. Smaller companies typically can operate at lower costs and may have lower return thresholds and may recover additional resources late in the life of an OCS field. As mentioned, these potential consequences could be mitigated with contractual side agreements regarding financial security. BOEM welcomes comments on any additional impacts and unintended consequences.

Bond Premium Payments

Insurance payments, or in the case of this analysis—bond premium payments, are considered transfer payments. The bond premium is consideration for the transfer of nonperformance risk. As described in the previous section, transfer payments are payments from one group to another that do not affect the total resources available to society. Lessees and grant holders (in aggregate) are estimated to pay less in bond premiums under this proposed action. Therefore, surety companies would underwrite fewer OCS bonds with this proposal.

There are several dozen companies underwriting OCS surety bonds, but just four companies underwrite more than 60 percent of current bonds for OCS liabilities. This loss of bond premiums might be somewhat offset by bonding required by companies selling OCS assets. As parties jointly and severally liable, the companies selling OCS assets would likely require purchasing companies to bond to them for decommissioning obligations. The annualized and NPV for the change in payments to surety companies can be found in **Table 18** and **Table 19**.

V. Analysis of Net Benefits

BOEM is not quantifying benefits other than the cost savings for this rule as shown in **Table 23**. BOEM will work to estimate the risk change in the final rule and welcomes public comments on methods to quantify benefits other than bond premium cost savings.

In theory, bond premiums should cover the default risk with a profit margin for the surety. OCS liabilities bonded by a surety company greatly reduce the risk that those liabilities will revert to a predecessor lessee/grant holder or become the responsibility of the government. Additionally, this rulemaking would provide lessees and grant holders with regulatory certainty and could incentivize the completion of OCS investment or other financial transactions that might not have moved forward due to the current regulatory uncertainty of BOEM's financial assurance program.

Table 23 Ten- and Twenty-Year Net Benefit Estimate (discounted at 7%)

10-Year (7 percent discounting)	
Annualized [Quantified] Benefits:	**$0**
Annualized Costs:	**-$16,473,168**
Annualized Net Benefits:	**$16,473,168**
Present Value [Quantified] Benefits:	**$0**
Present Value Costs:	**-$115,700,639**
Net Present Value	**$115,700,639**
20-Year (7 percent discounting)	
Annualized [Quantified] Benefits:	**$0**
Annualized Costs:	**-$16,988,417**
Annualized Net Benefits:	**$16,988,417**
Present Value [Quantified] Benefits:	**$0**
Present Value Costs:	**-$179,975,527**
Net Present Value	**$179,975,527**

VI. Analysis of Regulatory Alternatives

Following review of NTL No. 2016-N01 and careful consideration of stakeholder feedback, BOEM determined that revisions to the existing regulations were needed. While NTL No. 2016-N01 could be implemented in accordance with existing regulations, stakeholder input indicated that the approach taken in NTL No. 2016-N01 could result in unwarranted economic hardships for companies operating on the OCS. BOEM's goal for its financial assurance program continues to be protecting American taxpayers from exposure to liabilities associated with OCS development, while also assuring that its financial assurance program is cost efficient and minimizes any unwarranted financial and regulatory burden on lessees and grant holders.

BOEM has determined that full implementation of NTL No. 2016-N01 does not align with the mandates in E.O. 13783 and 13795 as explained in section

I. Introduction.

BOEM's overall objective is to ensure that taxpayers do not have to bear the cost of paying for decommissioning or other regulatory obligations not performed by lessees and grant holders on the OCS. At the same time, BOEM balances this objective against the cost efficiency and burdens imposed by increased amounts of surety bonds and other security requirements. The following "no action," more stringent, and less stringent regulatory alternatives were analyzed to determine the optimum financial assurance approach.

No Action Alternative

The "no action" alternative is what the world would be like if the proposed action is not adopted and the regulatory baseline is codified in the regulations. This alternative assumes BOEM would continue with the partial implementation of NTL No. 2016-N01 under which only high-risk, Tier 2, sole-liability properties are required to be covered by bonds or other financial assurance. See **Table 10** for the allocation of bonding covering Tier 2 sole-liability properties.

For reasons outlined in the section entitled, **Provisions of the Proposed Rule,** BOEM has proposed not to continue the current regulatory practice. The proposed rule would require bonding to cover all Tier 2 liabilities without a Tier 1 company as a lessee, co-lessee, grant holder, co-grant-holder, or predecessor.

Full Implementation of NTL No. 2016-N01 (More Stringent Regulatory Alternative)

(Assumes AA- Tier 1 Cut-Off for Analysis)

As mentioned earlier, BOEM considered using the full implementation of NTL No. 2016-N01 as a regulatory baseline, but decided against this option. This regulatory alternative estimates the effects for the full implementation of NTL No. 2016-N01.

Under NTL No. 2016-N01, any lessee with liabilities exceeding the value of its general bond was to be evaluated for the ability to self-insure up to 10% of its tangible net worth based on the merits of its financial capacity. A lessee that was eligible for self-insurance could make explicit arrangements to cover the additional security requirements of its co-lessees, but the decommissioning liability would still be attributed to all co-owners; express agreements to guarantee the liabilities of the weaker co-lessees would be of record; and such reliance could not exceed the self-insurance capacity of the lessee covering its co-lessees. Eliminating the previously used waiver would have required formerly waived lessees and the associated co-lessees to provide significant additional financial assurance to cover their liabilities. Based on the guidance in NTL No. 2016-N01 and the financial ratios published on the BOEM website, very few companies that applied for self-insurance were able to self-insure for their entire decommissioning liability.

NTL No. 2016-N01 included guidance regarding how BOEM would evaluate the following five criteria for determining a company's ability to meet its OCS obligations or to qualify for self-insurance:

1. Financial Capacity - BOEM established minimum thresholds for each of nine ratios, as well as the number of such thresholds that BOEM required companies to exceed, to determine if Financial Capacity is substantially in excess of existing and anticipated lease and other obligations.
2. Projected Financial Strength - The estimated value of existing OCS lease production and proven reserves of future production
3. Business Stability - Five years of continuous operation and production on the OCS or onshore
4. Reliability - Credit rating from Moody's or Standard and Poor's, or trade references
5. Record of Compliance - Assessed civil penalties by BOEM and/or BSEE; found to be non-compliant with any lease, plan, or permit term or condition; have been cited by any other agency(ies) with jurisdiction on the OCS, for noncompliance with any regulation; and/or have been cited for non-payment or under-payment of rentals, royalties, interest bills, civil penalties, or inspection fees, and such non-payment or under-payment has been referred to the U.S. Treasury for collection within the past five years.

Following issuance of NTL No. 2016-N01, BOEM received stakeholder feedback on common corporate structures of offshore lessees, specifically on parent and subsidiary relationships. The result of NTL No. 2016-N01, as written, was that not even the subsidiaries of highly rated companies could self-insure for the full amount of their OCS liabilities. The feedback received by BOEM primarily focused on two criteria: 1) most subsidiary lessees do not have an auditor's certificate with their financial statements, since the audit is performed at the parent level, and 2) most subsidiary lessees do not have a stand-alone credit rating; instead, the credit rating applies to the parent entity. The bottom-line result was that most subsidiary lessees and grant holders did not have the required documentation to be eligible for self-insurance.

For this assessment of NTL No. 2016-N01's full implementation regulatory alternative, BOEM assumes that 100 percent of the liability for companies rated AA and above would be fully covered by self-insurance. All liabilities below AA- (A+ and below for S&P) are assumed to require bonding under this regulatory alternative. While there are certainly a few companies with ratings below AA- that could partially self-insure and companies' AA- and above that could only partially self-insure, BOEM does not have a quantitative basis to estimate a percentage of liabilities absent an individual company evaluation. The 100% of liabilities not required to post financial assurance for AA- and above is BOEM's best estimate and the remainder of companies are anticipated to bear the compliance burden for the full implementation of NTL No. 2016-N01.

Full Implementation of NTL No. 2016-N01 Regulatory Alternative Assumptions

- All $32.8 billion in OCS liabilities not covered by self-insurance would be covered by bonds or other financial assurance.
- Companies rated AA- (S&P) and above would self-insure for 100% of their liabilities. BOEM would cancel all bonds currently held for these companies' liabilities.
- All companies rated A+ and below (S&P) would be required to purchase bonds covering 100% of their liabilities. The 10-year and 20-year analyses assume the decay rates described in section **II. Assumptions and Analytical Methodology**.

Compliance Cost Estimate for Full Implementation of NTL No. 2016-N01 Regulatory Alternative

Much of the analysis for this stricter regulatory alternative is based on data presented in previous sections. Of the preceding tables, **Table 7**, **Table 8** and **Table 9** show all OCS decommissioning liabilities. **Table 13** shows the bonds currently held by BOEM. **Table 24** displays the calculation for estimating the compliance cost of this regulatory alternative.

Table 24 Consolidated NTL 2016-N01 Net Bonding Premium Cost Calculation

Liability Category	OCS Liability Amount	Est. Bonding Premium Cost (2018)	
Companies Rated AA- and Above (**Table 7**)	$3,913,539,740	Self-insurance: Bonds Returned to Co:	$0 -$3,844,982
Companies Rated A+ and Below (**Table 7**, **Table 8**)	$28,857,212,938	Bonding for all Liabilities: Cost of Current Bonds: Incremental NTL Bond Cost:	$735,530,434 -$106,852,849 $610,501,663
(**Table 9**)	**$32,770,752,678**	**Compliance Cost of Reg. Alternative:**	**$606,656,681**

Net Benefits of Full Implementation of NTL No. 2016-N01 Regulatory Alternative

While there is expected to be a small reduction in risk if all A+ and below liabilities were bonded, BOEM has not estimated the benefit for this regulatory alternative.[22] The joint and several liability with multiple co-lessees and predecessors suggests the risk reduction from this alternative is very small. **Table 25** displays the estimated 10-year annualized net benefits discounted at 7% and **Table 26** displays the estimated 20-year annualized net benefits discounted at 7%.

[22] It is not expected to be a net benefit where the benefits exceed the $607 million in estimated 2018 compliance costs. BOEM does not have the data to analyze this alternative and will work to improve its quantitative risk assessment for existing decommissioning liabilities for the final rule's analysis.

Table 25 10-Year Cost (discounted at 7%)

10-Year	
Annualized Benefits:	$0
Annualized Costs:	$502,896,508
Annualized Net Benefits:	-$502,896,508
Present Value Benefits:	$0
Present Value Costs:	$3,532,134,628
Net Present Value	-$3,532,134,628

Table 26 20-Year Cost (discounted at 7%)

20-Year	
Annualized Benefits:	$0
Annualized Costs:	$468,382,779
Annualized Net Benefits:	-$468,382,779
Present Value Benefits:	$0
Present Value Costs:	$4,962,053,837
Net Present Value	-$4,962,053,837

The heavy compliance cost burden on lessees and grant holders, as shown above in **Table 24**, cannot justify this regulatory alternative. The small reduction in risk beyond that provided by joint and several liability does not justify the $607 million cost (2018$) of this regulatory alternative. For the reasons discussed in the rulemaking preamble and in this IRIA, BOEM has opted not to fully implement NTL No. 2016-N01.

BBB- Tier 1 Cutoff (More Stringent Regulatory Alternative)

Another possible regulatory alternative would be to raise the Tier-1 credit threshold to BBB-, which would be consistent with the definition of "investment grade."[23] This alternative would be stricter and more protective (from the public's perspective) by re-categorizing lessees

[23] The dividing line between Tier 1 and Tier 2 for this regulatory alternative is between the [S&P] BBB- and BB+ credit ratings.

with credit ratings of BB-, BB, and BB+ from Tier 1 to Tier 2 and thereby requiring additional bonding.

Currently BOEM is proposing to categorize companies with credit ratings BB- (S&P) and above as Tier 1 companies; this regulatory alternative would change the credit rating demarcation to BBB- and above. BOEM believes that BB- and above companies are most likely to meet their decommissioning obligations as described in section I.D. **Table 27** illustrates this regulatory alternative.

Table 27 Alternative Tier-2 Credit Rating Demarcation (S&P BB+)

Primary Credit Rating Threshold (NPRM)			More Stringent Regulatory Alternative	
Tier 1	AAA		Tier 1	AAA
	AA+			AA+
	AA			AA
	AA-			AA-
	A+			A+
	A			A
	A-			A-
	BBB+			BBB+
	BBB			BBB
	BBB-			BBB-
	BB+		Tier 2 (Added Bonding Required)	BB+
	BB	→		BB
	BB-			BB-
Tier 2 (Added Bonding Required)	B+			B+
	B			B-
	B-			B
	CCC+			CCC+
	CCC			CCC
	CCC-			CCC-
	Not Rated			Not Rated
	Bankruptcy			Bankruptcy
	Disqualified			Disqualified

As shown in **Table 2**, a company with a BB rating will entail a greater default risk than more highly rated companies. S&P defines BB as:

> *An obligor rated 'BB' is less vulnerable in the near term than other lower-rated obligors. However, it faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitments.*

This regulatory alternative would expand the universe of Tier 2 properties requiring financial assurance. This change would provide greater protection to the public from assuming decommissioning liabilities, but would correspondingly increase the bond premiums paid by certain lessees and grant holders. Companies rated BB+/- or equivalents have historical 1-year default rates of 0.7 to 1.2 percent. By year 10, that risk increased to between 12.77 and 15.88 percent (Table 21, Table 22), though it is likely their ratings would have been downgraded in the intervening period, allowing BOEM to require financial assurance under this proposed rule. (**Table 21**, **Table 22**).

The analysis of this regulatory alternative follows the same methodology as section III.A, which estimates the cost savings of the proposed rule. The data table differences in this section compared to section III.A occur because BOEM queried the data for this regulatory alternative more than four months after the data in section III.A (June vs. October). BOEM will analyze these alternatives using data from the same time frame for the final rule. Therefore, the data table differences in this section compared to section III.A may be a result of one or more of these events during that period:

1. OCS properties and the corresponding liabilities were bought and sold among companies.
2. The decommissioning liability estimate for some properties was updated.
3. Some facilities and wells were decommissioned.
4. Liability was assigned for newly drilled wells (mostly deepwater)
5. The credit rating or condition (properties in different stages of bankruptcy) of individual companies may have changed.

Additionally:

6. Bankruptcy liabilities were removed from the tables for this regulatory alternative, since bankrupt liabilities do not impact the bond premiums paid by companies.

The minor methodology and data differences between the June and October data analyses are not material. BOEM believes the analysis of this regulatory alternative is a fair representation of the potential regulatory impact and is providing the public with an opportunity to comment on this more stringent regulatory alternative. BOEM requests comment on this conclusion.

Table 28 and **Table 29** show the incremental OCS decommissioning liabilities that would be required to be covered by financial assurance under this more stringent regulatory alternative. The yellow highlighted cells indicate the change compared to the proposed action.

Table 28 Tier 2 Sole Liabilities (More Stringent Regulatory Alternative)

	Rating of current Owners	Total Liability	Bond rate	Est. 2018 Premiums
Sole Tier 2 liability *(compliance burden under regulatory alternative)*	BB+	$70,509,063	$24.38	$1,719,011
	BB	$16,941,183	$26.73	$452,838
	BB-	$102,257,129	$29.08	$2,973,637
Sole Tier 2 liability *(This is the rule's baseline)*	B+	$97,078,672	$31.43	$3,051,183
	B	$25,321,831	$33.78	$855,371
	B-	$11,566,537	$36.13	$417,899
	CCC+	$17,263,380	$58.75	$1,014,224
	CCC	$59,389,769	$66.88	$3,971,790
	CCC-	$0	$75.00	$0
	Not Rated	$160,813,264	$40.93	$6,582,087
	Incremental (BBs):	***$189,707,375***		***$5,145,486***
	Baseline	$371,433,453		$15,892,553
	TOTAL	**$561,140,828**		**$21,038,039**

Table 29 Tier 2 Joint Liabilities (More Stringent Regulatory Alternative)

	Rating of current Owners	Total Liability	Bond rate	Est. 2018 Premiums
Joint Tier 2 liability (This is the additional bonding required under the regulatory alternative)	BB+	$22,925,379	$24.38	$558,921
	BB	$121,332,645	$26.73	$3,243,222
	BB-	$239,925,540	$29.08	$6,977,035
	B+	$332,800,851	$31.43	$10,459,931
	B	$191,790,800	$33.78	$6,478,693
	B-	$297,210,781	$36.13	$10,738,226
	CCC+	$19,947,217	$58.75	$1,171,899
	CCC	$60,810,309	$66.88	$4,066,791
	CCC-	$0	$75.00	$0
	Not Rated	$1,678,741,160	$40.93	$68,710,876
	TOTAL:	**$3,117,570,142**		**$112,405,592**
	Incremental (BB):	**$384,183,564**		**$10,779,177**

A total of $573.9 million in additional sole and joint liabilities would be covered by surety bonds or other financial assurance under this regulatory alternative. This would total a net of $15.9 million in 2018 equivalent premiums (**Table 30**) above the proposed rule.

Table 30 Estimated Incremental Industry Cost Burden, More Stringent Regulatory Alternative

Rating	OCS Liability (sum of Table 28 + Table 29)	Bond Rate	Additional Premium Paid
BB+ sole/joint	$93,434,442	$24.38	$2,277,932
BB sole/joint	$138,273,828	$26.73	$3,696,059
BB- sole/joint	$342,182,669	$29.08	$9,950,672
TOTAL:	**$573,890,939**		**$15,924,663**

Table 31 shows the historical default risk for BB rated companies one year after the rating and the corresponding 1-year risked-value(s) of OCS decommissioning obligations.[24]

Table 31 1-year Quantified Risk for More Stringent Regulatory Alternative

Rating	**OCS Liability** (sum of **Table 28** + **Table 29)**	**Default Risk 1-year** (from **Table** ***3*****)**	1-year Risked Default Value
BB+ sole/joint	$93,434,442	0.34%	-$317,677
BB sole/joint	$138,273,828	0.56%	-$774,333
BB- sole/joint	$342,182,669	1.00%	-$3,421,827
TOTAL:	**$573,890,939**		**-$4,513,837**

The estimated 2018 premium payments of $15.9 million are more than 3 times the historical one-year default risk to the public of $4.5 million. BOEM reasons that the risk of default, without obtaining financial assurance one year before default, is so low, that it is not enough to justify BOEM requiring $15.9 million more in bond premiums from the industry. Recognizing that not all benefits of this regulatory alternative can be quantified, BOEM has still determined the benefits of this regulatory alternative do not justify its costs. BOEM requests comment on the quantified risk of default analysis that supports this conclusion.

[24] Tier 2 joint liability is analyzed in the same method as for sole liability in **Table 31**; for joint Tier 2 properties with multiple record title holders and joint and several liability, the risk would be further reduced if the historical default risk was considered separately for each owner.

B- Tier 1 Cutoff (Less Stringent Regulatory Alternative)

A more accommodating industry credit rating demarcation would be to drop the Tier 2 credit requirement for posting bonds from B+ to CCC+. Currently BOEM is proposing that companies with credit ratings BB- (S&P) and above be categorized as Tier 1 companies. These Tier 1 companies do not need to post financial assurance for decommissioning liabilities under the proposed action. BOEM assesses BB- and above companies to be financially strong and most likely to meet their decommissioning obligations.

This less stringent regulatory alternative assumes the single B credit ratings are considered Tier 1.

Table 32 Alternative Tier 1 Credit Rating Demarcation

Proposed Rule			Less Stringent Regulatory Alternative	
Tier 1	AAA		Tier 1	AAA
	AA+			AA+
	AA			AA
	AA-			AA-
	A+			A+
	A			A
	A-			A-
	BBB+			BBB+
	BBB			BBB
	BBB-			BBB-
	BB+	→		BB+
	BB			BB
	BB-			BB-
Tier 2	B+			B+
	B			B
	B-			B-
	CCC+		Tier 2	CCC+
	CCC			CCC
	CCC-			CCC-
	Not Rated			Not Rated
	Bankruptcy			Bankruptcy
	Disqualified			Disqualified

This regulatory alternative would greatly increase the likelihood that decommissioning costs would be borne by the taxpayer. The historical default for BB and above (all industries one-year prior is 2.516 percent) is shown in **Table 3**. The default rate for B alone is 12.83

percent. This regulatory option would increase the risk of uncovered default by more than six times the default rate than the baseline analysis concludes.

Table 33 shows the single B liabilities that would be uncovered with this regulatory alternative. $905.9 million of Tier 2 sole and joint liabilities would no longer be covered by surety bonds. This would save the industry approximately $30.3 million in 2018.

Table 33 Estimated Industry Cost Savings, Less Stringent Regulatory Alternative

Rating	OCS Liability (Table 10 + Table 11)	Bonds Demanded/ Canceled [Proposed Rule] (Table 14)	Bonds Canceled Lower Threshold [*Regulatory Alternative, all "B" Bonds*]	Bonds Canceled Difference (from proposed rule)	Bond Rate	Premium Saved (compared to Proposed Rule)
B+ sole/joint	$420,403,782	$260,912,448	-$159,491,334	$420,403,782	$31.43	$13,213,291
B sole/joint	$203,662,399	-$118,909,901	-$322,572,300	$203,662,399	$33.78	$6,879,716
B- sole/joint	$281,790,887	$121,439,820	-$160,351,067	$281,790,887	$36.13	$10,181,105
TOTAL:	**$905,857,067**	**$263,442,366**	**-$642,414,701**	**$905,857,067**		**$30,274,111**

The following table compares the one-year default risk for the proposed rule versus the more lenient regulatory alternative. As stated above, this less stringent regulatory alternative assumes the single B credit ratings are considered Tier 1.

Table 34 1-Year Quantified Risk for Less Stringent Regulatory Alternative

Rating	OCS Liability	Default Risk Yr-1 (from Table 3)	Yr-1 Risked Default Value
B+ sole/joint	$420,403,782	-2.08%	-$8,744,399
B sole/joint	$203,662,399	-3.60%	-$7,331,846
B- sole/joint	$281,790,887	-7.15%	-$20,148,048
TOTAL:	**$905,857,067**		**-$36,224,293**

The excessive risk to the taxpayer cannot justify this regulatory alternative. *Single B* rated companies are considered speculative with unacceptably high default rates and pose significant risk to the taxpayer. The industry cost savings ($30.3 million) do not justify the risk ($36.2 million) that this regulatory alternative poses to the public. BOEM requests comment on the quantified risk of default analysis that supports this conclusion.

VII. Sensitivity Analysis: Credit Rating Decrease/Increase

Offshore companies' primary source of revenue is from the sale of their oil and gas production. Therefore, market prices are one of the most important factors influencing an upstream oil and gas company's financial health. Market forces are beyond the control of any individual company or group of companies. Lower oil and gas prices are a significant strain on the finances of companies and lower credit ratings would normally be expected. On the other hand, higher oil and gas prices are a boon to company finances and higher credit ratings are the expected outcome. This sensitivity analysis is designed to simulate higher and lower oil/gas prices and a possible corresponding "shift" of companies' credit ratings.

A credit rating shift higher or lower may decrease or increase the required bonding levels under the proposed action. This sensitivity scenario "shifts" the entire $32.8 billion in OCS decommissioning liabilities up or down one credit rating due to possible increases or decreases in oil/natural gas prices. **Table 35** provides a hypothetical example if oil/gas prices drop and all OCS lessees and grant holders experience a drop of one credit rating (three sub-credit ratings).

Table 35 Example of a Credit Rating Drop (shift down one rating)

Old Credit Rating		*Oil & Gas Price Decrease (all credit ratings drop)*	New Credit Rating	
Tier 1	AAA	→	A+	Tier 1
Tier 1	AA+		A+	Tier 1
Tier 1	AA		A	Tier 1
Tier 1	AA-		A-	Tier 1
Tier 1	A+		BBB+	Tier 1
Tier 1	A		BBB	Tier 1
Tier 1	A-		BBB-	Tier 1
Tier 1	BBB+		BB+	Tier 1
Tier 1	BBB		BB	Tier 1
Tier 1	BBB-		BB-	Tier 1
Tier 1	BB+		B+	Tier 2
Tier 1	BB		B	Tier 2
Tier 1	BB-		B-	Tier 2
Tier 2	B+		CCC+	Tier 2
Tier 2	B		CCC	Tier 2
Tier 2	B-		CCC-	Tier 2
Tier 2	CCC+		D	Tier 2
Tier 2	CCC		D	Tier 2
Tier 2	CCC-		D	Tier 2
Tier 2	Not Rated		Not Rated	Tier 2
Tier 2	Bankruptcy		Bankruptcy	Tier 2
Tier 2	Disqualified		Disqualified	Tier 2

Table 36 presents the expected 2018 results if the entire $32.8 billion in OCS decommissioning liabilities shifts up or down one credit rating (three sub-credit ratings). The results show that the expected incremental change in bonding and bond premiums is expected to be about a 30 percent increase or decrease from the proposed rule. The results of this sensitivity analysis show most OCS facilities and properties would still have a Tier 1 co-lessee or predecessor in the chain of title and would not be required to bond under the proposed action.

Table 36 Sensitivity Results: Shift of One Credit Rating (CY 2018 Simulation)

	Under Proposed Action [2018] (Table 8, (Table 10 + Table 11))	Decrease One Rating [2018]	Increase One Rating [2018]
OCS Liabilities Requiring Bonds	$3,110,957,255	$3,197,750,601	$2,205,100,188
Cost of Bonds	$115,557,607	$149,169,302	$81,062,707
Bonding Cost Change from Proposed Rule [2018]	$0	$33,611,695	-$34,494,900

VIII. Initial 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. For the reasons explained in this section, BOEM has determined that the proposed rule is not likely to have a significant economic impact on a substantial number of small entities. BOEM has included an IRFA to assess the impact of this rule on small entities to provide the public an opportunity to comment on the analysis.

Description of the Reasons Why Action by the Agency Is Being Considered

Since the start of 2017, the President has issued several Executive Orders (E.O.s) that necessitated the review of BOEM's rules. On March 28, 2017, the President issued E.O. 13783, "Promoting Energy Independence and Economic Growth" (82 FR 16093). Section 2(a) of E.O. 13783 directs the heads of all agencies to:

> review all existing regulations, orders, guidance documents, policies, and any other similar agency actions (collectively, agency actions) that potentially burden the development or use of domestically produced energy resources, with particular attention to oil, natural gas, coal, and nuclear energy resources.

Section 2(g) of E.O. 13783 directs the heads of all agencies to address agency actions that hinder the development or use of domestically produced energy resources:

> [T]he head of the relevant agency shall, as soon as practicable, suspend, revise, or rescind, or publish for notice and comment proposed rules suspending, revising, or rescinding, those actions, as appropriate and consistent with law. Agencies shall endeavor to coordinate such regulatory reforms with their activities undertaken in compliance with Executive Order 13771 of January 30, 2017 (Reducing Regulation and Controlling Regulatory Costs).

On April 28, 2017, the President issued E.O. 13795, "Implementing an America-First Offshore Energy Strategy" (82 FR 20815), which directed the Secretary to review and to "…lawfully revise any related rules and guidance for consistency with the policy set forth in section 2 …" of E.O. 13795. Section 2 of E.O. 13795 in turn provides:

> It shall be the policy of the United States to encourage energy exploration and production, including on the Outer Continental Shelf, in order to maintain the Nation's position as a global energy leader and foster energy security and resilience for the benefit of the American people, while ensuring that any such activity is safe and environmentally responsible.

To carry out the directives contained in these Executive Orders, the Secretary of the Interior issued Secretary's Order No. 3349, "American Energy Independence," which requires that:

> each bureau and office shall review all existing regulations, orders, guidance documents, policies, instructions, notices, implementing actions, and any other similar actions (Department Actions) related to or arising from the Presidential Actions set forth above and, to the extent deemed necessary and permitted by law, initiate an appropriate process to suspend, revise, or rescind any such actions, consistent with the policies set forth in the March 28, 2017 E.O.

BOEM also received feedback from stakeholders during the extended partial implementation of NTL No. 2016-N01 that full implementation of this NTL could result in significant economic hardships for companies operating on the OCS. In light of these directives and this feedback, BOEM reconsidered its additional security requirements and is proposing several revisions.

BOEM believes the proposed changes to its financial assurance program would allow the bureau to more effectively address a number of legal and financial issues (e.g., joint and several liability, and economic viability of offshore assets) associated with decommissioning liability on the OCS. The proposed changes are designed to balance the risk of non-performance with the costs and disincentives to production that may be associated with the requirement to provide additional security. By addressing these concerns in a proposed rule, BOEM hopes to provide regulatory certainty and an opportunity for all interested and potentially affected parties to provide substantive feedback.

Succinct Statement of the Objectives of, and Legal Basis for, the Proposed Rule

To address the directives contained in E.O. 13783 and E.O. 13795, BOEM is amending and updating the 30 CFR Parts 550 and 556 regulations regarding financial assurance for OCS leases, right-of-use and easement grants and pipeline right-of-way grants. Under OCSLA, the Secretary of the Interior (Secretary) administers the provisions relating to the leasing of the OCS and regulation of mineral exploration and development operations on those leases. The Secretary is authorized to prescribe "such rules and regulations as may be necessary to carry out [OCSLA's] provisions . . . and may at any time prescribe and amend such rules and regulations as he determines to be necessary and proper in order to provide for the prevention of waste and conservation of the natural resources of the [OCS] . . ." and that "shall, as of their effective date, apply to all operations conducted under a lease issued or maintained under the provisions of [OCSLA]" (43 U.S.C. 1334(a)).

The Secretary delegated most of the responsibilities under OCSLA to BOEM and BSEE, each of which is charged with administering and regulating aspects of the nation's OCS oil and gas program. BOEM is responsible for managing development of the nation's offshore resources in an environmentally and economically responsible way. BOEM's financial assurance regulations under 30 CFR Parts 550 and 556 require lessees and grant holders to provide bonding for leases and grants. Section 556.901(d) authorizes the Regional Director to require additional security for leases above the prescribed amounts for lease and areawide bonds. Similarly, section 550.1011 authorizes the Regional Director to require an areawide base bond in a prescribed amount, and additional security above the prescribed amount, for pipeline right-of-way grants. The regulations for right-of-use and easement grants (30 CFR 550.160 and 550.166), provide for the Regional Director to require bonds or other security for right-of-use and easement grants.

BOEM's objective is to ensure that taxpayers do not have to bear the cost of paying for obligations not performed by lessees and grant holders on the OCS. At the same time, BOEM must balance this objective against the costs and disincentives to additional exploration, development, and production that may be imposed as increased amounts of security are required. To maintain a balanced framework, BOEM is proposing to: 1) modify the evaluation process for requiring additional security; 2) streamline the evaluation criteria; and 3) remove restrictive provisions for third-party guarantees and decommissioning accounts. The proposed rule would allow BOEM to require additional security only when: (1) a lessee or grant holder poses a substantial risk of becoming unable to carry out its obligations under the lease or grant; (2) there is no co-lessee or co-grant holder or predecessor that is jointly and severally liable for those obligations and that has sufficient financial capacity to carry out the obligations; and (3) the property is at or near the end of its productive life, and thus, may not have sufficient value in reserves to be sold to another company that would assume these obligations.

Description of and, Where Feasible, an Estimate of the Number of Small Entities to which the Proposed Rule Would Apply

A small entity, as defined by the RFA, consists of small businesses, small not-for-profit organizations, and small governmental jurisdictions. We have identified no small not-for-profit organizations or government jurisdictions that the rule would impact, so this analysis focuses on impacts to small businesses (hereafter referred to as "small entities").[25] A small entity is "one which is independently owned and operated and which is not dominant in its field of operation." The definition of small business varies from industry to industry to reflect industry size differences.

The proposed rule would affect OCS lessees and right-of-use and easement and pipeline right-of-way grant holders. BOEM's analysis shows that this includes roughly 555 companies with ownership interests in OCS leases and grants.[26] Entities that would operate under this rule are classified primarily under North American Industry Classification System (NAICS) codes 211120 (Crude Petroleum Extraction), 211130 (Natural Gas Extraction) and 486110 Pipeline

[25] Native American or Native Alaskan corporations with ownership interests in OCS properties are not considered government jurisdictions for this analysis.
[26] The count of companies often includes multiple subsidiary companies under one parent. The categorization of small versus large company is made based on the size of the parent company per SBA Office of Advocacy guidance.

Transportation of Crude Oil and Natural Gas.[27] For NAICS classifications 211120 and 211130, the Small Business Administration defines a small business as one with fewer than 1,250 employees; for NAICS code 486110 it is a business with fewer than 1,500 employees. Based on this criterion, approximately 386 (70 percent) of the businesses operating on the OCS are considered small (see **Table 37**). As all are subject to this proposed rule, BOEM expects the proposed rule would affect a substantial number of small entities.

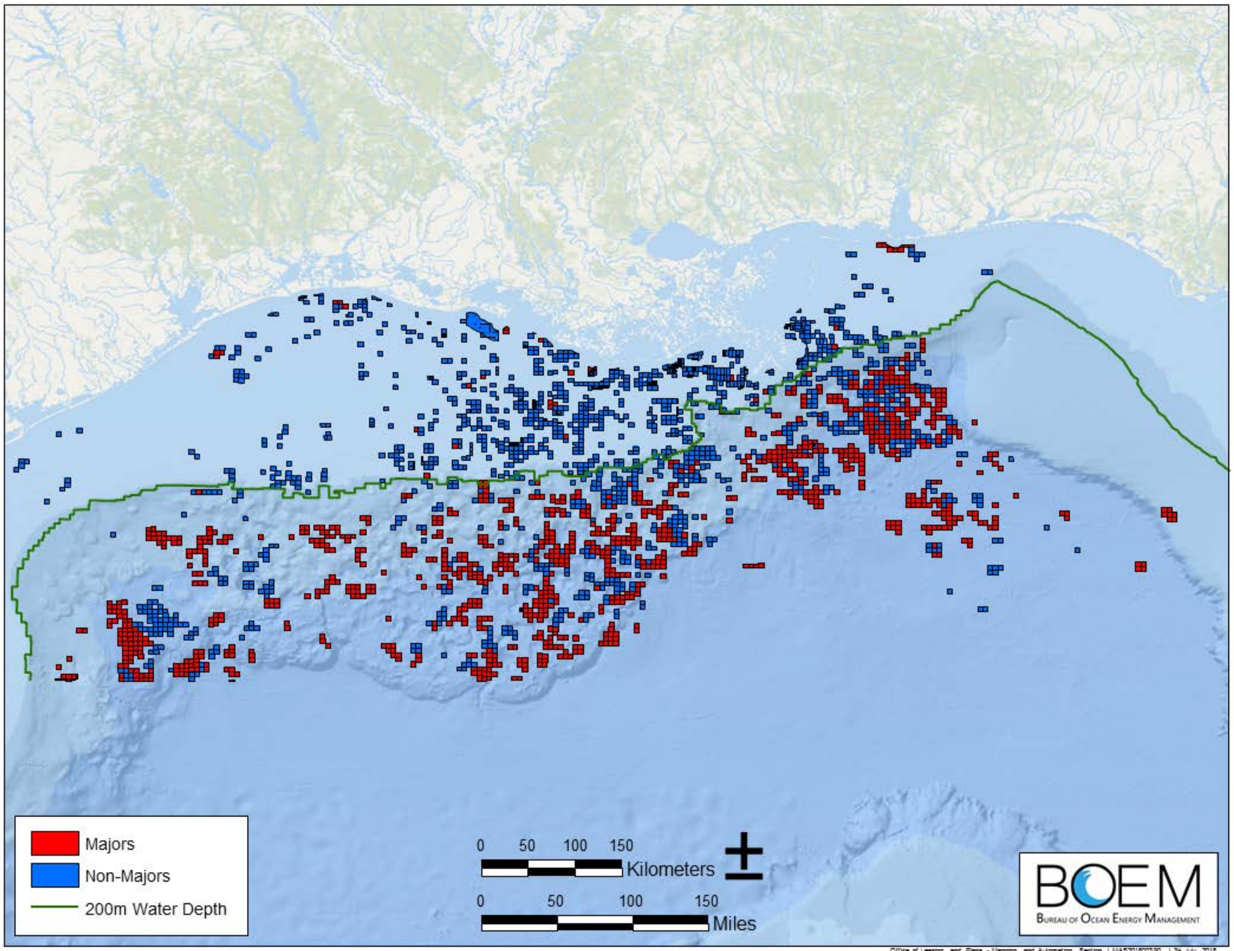
Table 37 Count of Companies with OCS Record Title Ownership (circa June 2018)

	Large Entity	Small Entity
Tier 1	146	51
Tier 2	23	335
Total:	169	386

The majority of OCS properties operated or owned by a small entity are in shallow water in the Gulf of Mexico (GOM shelf) and on select Pacific properties. The GOM shelf is a mature oil and natural gas basin, first produced more than 70 years ago. Historically, GOM shelf fields were initially developed by large oil and gas entities (majors) and then sold to smaller entities. The current lease ownership (**Figure 4**) illustrates a distinction of the two water depths of ownership; majors (integrated companies) own the majority of the deepwater leases and non-majors own the majority of the shallow water leases. Most of the non-majors (non-integrated companies) are classified as small entities.

[27] Some holders of OCS properties may be categorized under other NAICS codes. For example, a venture capital fund with only an economic interest in an OCS property may be categorized under another NAICS code, but BOEM believes the three NAICS Codes used here capture the large majority of OCS entities.

Figure 4 Active GOM Leases by Company Type



While the actual distribution of proportional ownership of leases and grants may be slightly different than illustrated in **Figure 4**, the general result is the same. Larger companies are primarily located in deep water and smaller companies dominate the GOM shelf. **Table 38** shows the OCS liability distribution among the different types and locations of properties.

Table 38 OCS Liability Distribution ($million)

Liability Category	
GOM Lease Shallow (<200m)	$8,164
GOM Lease Deep (>200m)	$20,024
PAC/AK (all)	$1,535
GOM ROW	$2,356
GOM RUE	$692
TOTAL:	**$32,771**

The primary changes made by this proposed action are described in the section entitled, **Provisions of the Proposed Rule**. The most significant proposed change is that BOEM would explicitly consider the financial capacity of co-owners, and any predecessors of the current lessees or grant holders, when determining the need for current lessees and grant holders to provide additional security. If one of these entities meets the proposed credit rating, or proxy credit rating, criteria, BOEM might determine that the current lessee or grant holder is not required to provide additional security. This change recognizes the mitigation of risk provided by the joint and several liability requirement for decommissioning obligations. This requirement allows BOEM to require co-lessees and/or liable predecessors to perform decommissioning when a current lessee or grant holder is unable to meet its decommissioning obligations. This explicit consideration of joint and several liability when determining financial assurance requirements significantly benefits Tier 2 companies that have an S&P credit rating of B or lower or an equivalent rating from another agency or proxy rating from BOEM. As shown in **Table 39,** small entities own 98 percent of the current $9.236 billion in Tier 2 liability. Since the overwhelming majority of current Tier 2 properties have a Tier 1 predecessor in the chain of title (See **Table 7**) and would not be subject to the requirement to provide additional financial assurance under the proposed rule, small entities would generally be beneficiaries of this rulemaking, but Tier 2 small entities holding joint and several liabilities with other Tier 2 companies would realize increased compliance burdens. This increased compliance burden would vary substantially by small entity; the burden is a function of the small entity's decommissioning liability, reserves, and the premium pricing for its financial assurance. Based on the estimates in **Table 6**, these premiums could exceed $83 per $1000 of bond coverage for highly speculative small entities[28]. The agency does not have access to the proprietary data necessary to analyze individual compliance burdens for affected companies and, therefore, requests data and feedback from small entities as to what, if any, cost burdens may be realized from this rulemaking.

[28] The largest burden would be on "highly speculative" companies; however, BOEM notes that small entities, even unrated, may be financially strong, or stronger than "highly speculative," and would, therefore, have a smaller burden. Small entities themselves are in the best position to determine their financial strength and associated impact.

Table 39 OCS Record Title Proportional Decommissioning Liability (2018, $millions)

	Large Co.	Small Co.	Grand Total
Tier 1 company	$20,413 (99%)	$3,122 (26%)	$23,534 (72%)
Tier 2 company	$217 (1%)	$9,019 (74%)	$9,236(28%)
Grand Total:	$20,629	$12,141	$32,770

There might be some Tier 1 small entities with $3.1 billion in OCS liabilities (**Table 39**) that might be at a disadvantage from this proposed action. As discussed in the section entitled,

Potential Counterproductive Impacts of Proposed Action – Moral Hazard, those potentially disadvantaged could include the financially stronger, small companies that compete with other small companies on the mature GOM shelf. BOEM's proposal may theoretically create a private cost advantage for some firms by limiting their asset exposure through the transfer of decommissioning liability to predecessor companies. This would occur if operating rights or record title owners take excessive business risks in exploration/development or other business decisions. While the obligation to perform decommissioning operations cannot be avoided by filing for bankruptcy, current lessees and grant holders with unencumbered assets valued below their estimated asset retirement costs might nonetheless be incentivized to apply capital toward expanding operations that would otherwise be applied to decommissioning obligations.

This approach might also distort industry structure. The ability to forgo posting financial assurance potentially creates a private cost advantage for certain entities. Entities operating in a manner designed to transfer decommissioning obligations to predecessor companies would have lower costs of production. This could curtail competition and incentivize financially weaker companies. BOEM welcomes comments on both the positive and negative impacts to small entities under this proposed rulemaking.

Description of the Projected Reporting, Recordkeeping, and Other Compliance Requirements of the Proposed Rule

The proposed revisions would add very limited new reporting, recordkeeping, or other compliance requirements. BOEM estimates the net information collection burdens (see rulemaking preamble for additional discussion) for the proposed rule are very close to the same as that for the existing regulatory framework. Some companies that did not previously have audited financial statements or reserve reports might choose to incur additional expense to prepare these documents to reduce their additional security costs. BOEM expects very few companies to incur this expense solely to minimize demands for additional security since most companies with lease ownership interests meet the SEC present value pricing methodology for reserves or have externally audited financial statements or have a Tier 1 predecessor lessee/holder. Other companies would realize reduced paperwork burdens due to the simplified evaluation of financial assurance for lessees and grant holders. Most other proposed changes are either textual clarifications, or remove or reduce existing restrictions on use of the various forms of security.

BOEM estimates that the net annual cost savings to small entities would constitute less than one percent of their average annual revenues. Because most small entities are Tier 2 companies and many Tier 2 companies would benefit the most from this proposed action, small companies would benefit from this proposed rule. BOEM estimates that small entities would realize 23 percent ($3.3 million) of the net cost savings of this proposed action through reduced bond premiums. See **Table 40** for the estimated small/large entity distribution of cost savings or compliance costs for the proposed rule.

Table 40 Estimated Annual Cost Savings or Compliance Costs for Small and Large Entities (2018, $thousands)

	Large Co.	Small Co.	Total
BB- and above (Tier 1)	-$10,665	-$1,631	-$12,296
B+ and below (Tier 2)	-$40	-$1,652	-$1,692
Total:	**-$10,705**	**-$3,283**	**-$13,988**

Identification of All Relevant Federal Rules That May Duplicate, Overlap, or Conflict with the Proposed Rule

The proposed rule does not conflict with any relevant Federal rules, nor duplicate or overlap with any Federal rules, and therefore does not unnecessarily add cumulative regulatory burdens on small entities without any gain in regulatory benefits.

Description of Significant Alternatives to the Proposed Rule

The regulatory alternatives for the proposed rule are discussed in section **VI. Analysis of Regulatory Alternatives**.[29] BOEM believes the proposed action would strongly protect the public from incurring decommissioning costs and minimize the financial assurance cost burden on small entities. The regulatory alternatives include both more stringent and less stringent regulatory options. Tier 2 companies are overwhelmingly small companies as shown in **Table 37**. The regulatory revisions in this proposed rule would benefit Tier 2 companies by establishing more straightforward financial performance metrics and a forbearance timetable so long as the value of the associated reserves exceed three times the decommissioning obligations. It would also excuse them from providing additional security for properties where there is a viable Tier 1 company in the chain of title.

BOEM's proposed use of lessee/predecessor credit ratings and lease reserves for determining whether financial assurance would be required creates a performance standard rather than a prescriptive design standard for companies. BOEM is not proposing to categorically exempt or provide differing compliance requirements for small entities. Decommissioning obligations and the joint and several nature of those obligations is not being changed with this proposed rule. Categorically exempting small entities from the provisions of this proposed rule could provide a moral hazard situation where the risk to the public increases, and the taxpayer is at greater risk for assuming the decommissioning obligations. Categorically providing small entities with additional time in the regulations before requiring financial assurance could result in a greater risk due to the financial deterioration of a given company during that time. It is possible that a company, previously able to meet its decommissioning obligation, would not be able to satisfactorily perform decommissioning due to financial constraints if categorically granted additional time to provide financial assurance.

IX. Unfunded Mandates Reform Act (UMRA) Analysis

[29] The "No Action" alternative discussed in section VI is a regulatory alternative BOEM has considered and is presented as part of the Regulatory Impact Analysis. It does not meet the criteria for an alternative under the Regulatory Flexibility Act and should not be considered a part of the Regulatory Flexibility Analysis.

This rule does not impose an unfunded mandate on State, local, or tribal governments, or the private sector of more than $163[30] million per year (see **Table 1**). This rule does not have a significant or unique effect on state, local, or tribal governments or the private sector. Moreover, the rule would not have disproportionate budgetary effects on these governments. BOEM has also determined that this proposed rule would not impose costs on the private sector of more than $100 million in a single year. A statement containing the information required by the Unfunded Mandates Reform Act (2 U.S.C. §§ 1531 *et seq.*) is not required and BOEM has chosen not to prepare such a statement.

X. Effects on the Nation's Energy Supply (Executive Order 13211)

Under E.O. 13211 (66 FR 28355, May 22, 2001), 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 (including a shortfall in supply, price increases, and increased use of foreign supplies) expected to result from the action and a discussion of reasonable alternatives and their effects.

The Office of Management and Budget provides guidance for implementing this Executive Order, outlining outcomes that may constitute "a significant adverse effect" when compared with the regulatory action under consideration:

- Reductions in crude oil supply in excess of 10,000 barrels per day (bbls);
- Reductions in fuel production in excess of 4,000 bbls;
- Reductions in coal production in excess of five million tons per year;
- Reductions in natural gas production in excess of 25 million Mcf per year;
- Reductions in electricity production in excess of one billion kilowatt-hours per year or in excess of 500 megawatts of installed capacity;
- Increases in energy use required by the regulatory action that exceed the thresholds above;
- Increases in the cost of energy production in excess of one percent;
- Increases in the cost of energy distribution in excess of one percent; or
- Other similarly adverse outcomes.

In addition, a regulation may have "significant adverse effects" if it:

- Adversely affects, in a material way, the productivity, competition, or prices in the energy sector;

[30] The private-sector cost threshold established in UMRA in 1996 was $100 million. After adjusting for inflation, the 2019 private-sector threshold is $163 million.

- Adversely affects, in a material way, productivity, competition or prices within a region;
- Creates a serious inconsistency or otherwise interferes with an action taken or planned by another agency regarding energy; or
- 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 Executive Orders 12866 and 13211.[31]

The proposed rule is a deregulatory action and does not add new regulatory compliance requirements that would lead to adverse effects on the nation's energy supply, distribution, or use. Rather, the regulatory changes would help to reduce compliance burdens on the oil and gas industry that may hinder the continued development or use of domestically produced energy resources.

As detailed in the section entitled, **Provisions of the Proposed Rule**, the regulatory changes are expected to provide the oil and gas industry annualized compliance cost savings of $17.0 million (7% discounting) during the 20-year analysis of the rule's effects. The net compliance savings would not be borne evenly by all companies. Some companies would benefit and others would be required to post additional bonding. The difference depends on the credit rating or proxy credit rating of each company and the value of current bonds. The savings enjoyed by the offshore oil and gas industry under this rule would reduce the overall costs of OCS operating companies. This proposed regulation would not adversely affect productivity, competition, or prices within the energy sector and are unlikely to materially impact OCS oil and gas production. A Statement of Energy Effects is not required.

[31] OMB. 2001. Memorandum for Heads of Executive Department Agencies, and Independent Regulatory Agencies, Guidance for Implementing E.O. 13211, M-01-27. https://www.whitehouse.gov/wp-content/uploads/2017/11/2001-M-01-27-Guidance-for-Implementing-E.O.-13211.pdf