
The Sabin Center, together with the Columbia Center on Sustainable Investment, will shortly publish a ten-jurisdiction survey of decommissioning requirements for offshore upstream oil and gas infrastructure (pre-publication draft attached). The goal of this study was to provide policymakers, civil society members, and industry participants with tools to protect the public against the risk of private oil and gas companies, contractors, or investors (for simplicity, “oil

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1 Martin Lockman, Martin Dietrich Brauch, Esteban F. Fresno Rodríguez, & José Luis Gallardo Torres, Decommissioning Liability at the End of Offshore Oil and Gas: A Review of International Obligations, National Laws, and Contractual Approaches in Ten Jurisdictions, SABIN CENTER FOR CLIMATE CHANGE LAW & COLUMBIA CENTER ON SUSTAINABLE INVESTMENT (forthcoming August 2023) (attached).
companies”) defaulting on their decommissioning obligations in the face of the global climate transition.2

Based on this research, the Sabin Center supports regulations that increase the amount, and quality, of collateral and financial assurance available to the federal government for decommissioning activities. Moreover, the Sabin Center supports revisions that clarify and streamline BOEM’s standards for supplemental bonding. The current supplemental bonding standards consider a range of factors, including industry reference letters,3 demonstrations of “[b]usiness stability based on five years of continuous operation and production,”4 financial snapshots,5 and the applicant’s “[r]ecord of compliance with laws, regulations, and lease terms.”6 As BOEM correctly notes in the Proposed Rule, these factors are often irrelevant to, or poor predictors of, a company’s likely ability to fulfil its decommissioning obligations.7

However, BOEM’s financial assurance regime, as currently constructed and as envisioned in the Proposed Rule, ignores the increasing likelihood of sector-wide climate-related decommissioning events. Yet the global climate transition represents a significant systemic risk to the oil industry. Faced with the increasingly dire impacts of global climate change, a large number of countries, including the United States,8 have made significant commitments to reduce GHG

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2 See infra note 8 and accompanying text.
4 30 C.F.R. § 556.901(d)(1)(iii).
5 30 C.F.R. § 556.901(d)(1)(i).
6 30 C.F.R. § 556.901(d)(1)(v).
emissions across their entire economies. These commitments are a critical part of the broader “climate transition” meant to curb global climate change and prepare our society for its impacts.

Increased public focus on GHGs, coupled with a global push for electrification and declining prices for renewable energy, may cause a rapid decline in demand for fossil fuels or spur legal restrictions on the extraction, use, and price of fossil fuels. BOEM should anticipate such restrictions—the Intergovernmental Panel on Climate Change projects that GHG emissions from existing and planned fossil fuel infrastructure will push global warming past the Paris Agreement’s 1.5°C threshold, and more detailed projections estimate that “nearly 60 per cent of oil and fossil methane gas . . . must remain unextracted to keep within a 1.5 °C carbon budget.”

Even without regulatory restrictions on fossil fuel consumption, global carbon taxes, or other significant legal changes, the increasing adoption of renewable energy and energy-efficient technologies may depress demand for fossil fuels. A sector-wide decline in the oil and gas industry, whether from sagging demand or legal restrictions on supply, could trigger a large-scale “climate-related decommissioning event,” in which multiple offshore facilities reach the end of their useful economic life at the same time that their owners face financial distress.

In light of the substantial risk that the climate transition poses to the oil and gas industry, the Sabin Center is broadly supportive of BOEM’s efforts to protect the public from bearing decommissioning costs by increasing the quantity and quality of decommissioning security...

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9 See Nationally Determined Contributions Registry, UNITED NATIONS CLIMATE CHANGE (n.d.), https://unfccc.int/ndcreg (registry containing nationally determined contributions from 195 nations).


13 See Fabio Panetta, Member of the Executive Board, European Central Bank, Greener and Cheaper: Could the Transition Away From Fossil Fuels Generate a Divine Coincidence? (Nov. 16, 2022), (transcript available at the following link: https://www.ecb.europa.eu/press/key/date/2022/html/ecb.sp221116–c1d5160785.en.html) (discussing “green innovation” as a source of demand pressure on fossil fuel producers).
provided by private oil and gas companies, contractors, or investors (for simplicity, “oil companies”). We submit three comments intended to strengthen the Proposed Rule and reduce the potential adverse impacts of the global climate transition on the American public:14

- BOEM should broadly eliminate self-bonding for decommissioning obligations;
- BOEM should discount the value of proven reserves in any “Reserves-to-Decommissioning Cost Ratio” to account for climate-related asset stranding; and
- BOEM should calculate supplemental financial assurance requirements based on the P90 decommissioning liability projection, or adopt a liability model that explicitly considers sector-wide climate transition risk.

These points are further elaborated below.

1. To reduce risk from a large-scale climate-related decommissioning event, BOEM should broadly eliminate self-bonding for decommissioning obligations.

The Proposed Rule contains significant revisions to BOEM’s criteria for determining whether offshore oil companies will be required to provide supplemental financial assurance to secure their decommissioning obligations.15 To the extent that the Proposed Rule will increase the amount of collateral available to the United States for offshore decommissioning expenses, the Sabin Center supports this effort. However, BOEM should consider a broader categorical restriction on “self-bonding” practices that allow oil companies to provide financial assurance in an amount below their anticipated decommissioning expenses.

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14 Fossil fuels produced from BOEM-managed leases contribute significantly to global climate change, and BOEM may have a legal duty to more broadly restrict offshore fossil fuel development to minimize these harms. However, the Sabin Center recognizes that the purpose of the Proposed Rule “is to ensure that taxpayers do not bear the cost of meeting the obligations of lessees and grant holders on the OCS, particularly the costs of decommissioning that must be met after the cash flow from production ceases.” Proposed Rule at 42142. The Sabin Center also acknowledges that, on the day that the Proposed Rule was published, BOEM rejected a petition to initiate a rulemaking process to reduce the rate of oil and gas production under the Outer Continental Shelf Lands Act of 1953. See Letter from Laura Daniel-Davis, Principal Deputy Assistant Secretary of Land and Mineral Management, U.S. Department of the Interior, to Ms. Randi Spivak, Public Land Program Director, Center for Biological Diversity, RE: Petition to Reduce the Rate of Oil and Gas Production on Public Lands and Waters to Near Zero by 2035 (June 29, 2023) (available at: https://www.biologicaldiversity.org/programs/public_lands/energy/dirty_energy_development/oil_and_gas/pdfs/Cen ter-rulemaking-oil-and-gas-petition-response--Jun-27-2023.pdf). In recognition of this restricted purpose, the Sabin Center narrowly confines its comments to assessing the impact of the Proposed Rule on the anticipated ability of lessees to satisfy their decommissioning obligations.

15 See Proposed Rule at 42141–42.
Self-bonding for environmental remediation has a long track record of failure in the face of sector-wide declines. For example, the Surface Mining Control and Reclamation Act of 1977 (SMCRA) was intended to ensure that financial resources were available to reclaim mines at the end of their commercial lives.\textsuperscript{16} SMCRA requires mine operators to post financial assurance based on the expected future cost of reclaiming their mined land, and authorized the coal mine regulator of each State to “set its own criteria for acceptable forms of surety.”\textsuperscript{17} However, in the wake of a series of bankruptcies between 2015 and 2016 that impacted “nearly half of [the United States’] coal production,”\textsuperscript{18} U.S. regulators realized that self-bonding of decommissioning liability posed significant and correlated default risks to host governments. In March of 2018, the Government Accountability Office (GAO) conducted a review of financial assurances under SMCRA. Among other shortcomings, the GAO’s report found that regulators often struggle to replace SMCRA self-bonding with other financial assurances, because “[i]f an operator no longer qualifies for self-bonding,” requiring the company to post additional collateral “could lead to a worsening of the operator’s financial condition, which could make it less likely that the operator will successfully reclaim the site.”\textsuperscript{19} The GAO noted that industrywide bankruptcies and difficulties with securing bonds from near-bankrupt companies led the Bureau of Land Management “to implement regulations in 2001 eliminating the use of self-bonding for hardrock mining.”\textsuperscript{20} The GAO’s review ultimately recommended that Congress consider eliminating SMCRA’s self-bonding provisions.\textsuperscript{21}

BOEM itself has acknowledged that its self-bonding regulations create a significant risk to taxpayers when the oil industry faces systemic precarity. During “the oil price collapse of 2014–2016,” for example, BOEM recognized that a number of oil companies had provided inadequate financial assurance, but “did not fully enforce” existing financial assurance requirements because the Bureau “was concerned that fully enforcing [the standard] would have led to an increase of

\textsuperscript{16} Denise A. Dragoo & James P. Allen, \textit{Coal Mine Closure, Reclamation and Financial Assurance}, ROCKY MOUNTAIN MINERAL LAW FOUNDATION PAPER No. 7 (Nov. 5-6, 2009).

\textsuperscript{17} Id.


\textsuperscript{20} Id. at 23–24.

\textsuperscript{21} Id. at 27.
bond demands that, in turn, would have contributed to an increase in bankruptcy filings.”

However, the NPRM accompanying the Proposed Rule provides no justification for BOEM’s continued acceptance of self-bonding.

Given BOEM’s longstanding recognition of the risks caused by self-bonding, and the systemic precarity that the climate transition creates for the oil industry, BOEM should consider an alternative to the Proposed Rule that would phase out self-bonding. While the statutory text of SMCRA requires the Department of the Interior to allow self-bonding under certain circumstances, BOEM’s regulatory authority over offshore leasing is much broader. The Sabin Center urges BOEM to eliminate any provisions that allow oil companies to self-bond, and to instead adopt regulations that require all oil companies to provide enough financial assurance to secure their anticipated decommissioning obligations.

2. To reduce risk from a large-scale climate-related decommissioning event, BOEM should discount the value of proven reserves in any “Reserves-to-Decommissioning Cost Ratio” to account for climate-related asset stranding.

The Proposed Rule would waive supplemental financial assurance requirements for leases if “[t]here are proved oil and gas reserves on the lease . . . the value of which exceeds three times the estimated cost of the decommissioning associated with the production of those reserves.” In the NPRM accompanying the Proposed Rule, BOEM requested comments “on whether this is an appropriate threshold, or if there are better approaches and/or data sets available for that would provide BOEM with better certainty that taxpayer interests will ultimately be protected.”

As an initial comment, the Sabin Center notes that the Proposed Rule exposes the American public to significant directional risk. Decommissioning security becomes relevant only where an

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24 In fact, the Outer Continental Shelf Leasing Act places relatively few statutory conditions around bonding. In assessing its statutory authority to set decommissioning bonding requirements, BOEM points only to 43 U.S.C. 1338a, which “reflects Congress’ intent to authorize BOEM to collect financial assurance.” Proposed Rule at 42183.

25 Proposed Rule at 42172 (to be codified at 30 C.F.R. § 556.901(d)(4)).

26 Proposed Rule at 42148.
oil company defaults on its decommissioning obligations. The NPRM assumes that in the event of bankruptcy another oil company will buy the lease, assume the existing oil company’s decommissioning obligations, and recoup its investment by extracting and selling the proven oil reserves.\textsuperscript{27} However, as BOEM recognized in a 2020 rulemaking, oil company bankruptcies may be driven by a decline in the value of oil that simultaneously reduces the value of that company’s proven reserves.\textsuperscript{28} Put simply, the proven oil reserves that BOEM looks to in lieu of security are likely to lose value exactly when BOEM must rely on the value of those assets to pay for (or persuade another oil company to pay for) decommissioning expenses.

The Proposed Rule does not entirely ignore this directional risk. In justifying the Proposed Rule’s three-to-one ratio, as opposed to a lower ratio, BOEM correctly notes that oil and gas prices can be volatile, and that broad systemic factors like “macro-economic conditions” may reduce a lease’s “commercial appeal.”\textsuperscript{29} However, the NPRM accompanying the Proposed Rule does not address whether these factors should caution against adopting a Reserves-to-Decommissioning Cost Ratio at all.

In addition, the Proposed Rule adopts a valuation methodology based on techniques developed by the Security and Exchange Commission (SEC) for reporting the value of proven oil and gas reserves.\textsuperscript{30} This methodology is poorly suited for BOEM’s purposes. Given the scope and scale of global climate action,\textsuperscript{31} the value of unextracted fossil fuels may be impaired by market forces, by regulatory action in the United States or other jurisdictions, or by civil liability associated with their use. While the costs of future impairments will eventually be incorporated into valuations of proven oil and gas reserves, the SEC’s valuation methodology specifically examines “prices and costs under \textit{existing economic conditions}.”\textsuperscript{32} This methodology might be adequate for the purposes of real-time SEC disclosures, but BOEM is explicitly using this

\textsuperscript{27} \textit{See id.}


\textsuperscript{29} \textit{Id.}

\textsuperscript{30} \textit{See Proposed Rule at 42172 (to be codified at 30 C.F.R. § 556.901(d)(4)) (citing CFR §§ 210.4–10, 229.1200).}

\textsuperscript{31} \textit{See supra} Note 9 and accompanying text.

\textsuperscript{32} 17 C.F.R. § 229.1202(a)(2) (2023).
valuation to anticipate the *future* value of assets in the event of an oil company bankruptcy. These are significantly different circumstances.

If BOEM retains a Reserves-to-Decommissioning Cost Ratio exemption in any final rule, BOEM should adopt a forward-looking methodology that considers the risks associated with a large-scale climate-related decommissioning event. One way to approach this challenge would be to calculate the value of proven oil reserves based on a scenario where oil companies are forced, by mechanisms like carbon taxes or civil litigation, to incorporate the externalities of emissions associated with their products. Under this scenario, a Reserves-to-Decommissioning Cost Ratio exemption would exempt oil companies from providing supplemental financial assurance if:

1. the value of their proven oil reserves under current economic conditions; *minus*
2. the externalities associated with the GHGs embedded in their proven reserves; *is greater than or equal to*
3. three times the oil company’s estimated decommissioning costs.

To estimate the climate-related costs associated with GHG emissions, BOEM could look to the National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change (the “Guidance”) issued by the U.S. Council on Environmental Quality (CEQ) in January 2023. Among other considerations, CEQ’s Guidance recommends that agencies assess the impact of proposed federal actions based on “the best available [SC-GHG] estimates . . . to translate climate impacts into the more accessible metric of dollars, allow decision makers and the public to make comparisons, help evaluate the significance of an action’s climate change effects, and better understand the tradeoffs associated with an action and its alternatives.”33 SC-GHG metrics have repeatedly been upheld by courts as a valid method of assessing the climate impact of proposed federal actions.34

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In discounting the value of proven oil and gas reserves, BOEM may reasonably choose to adopt a different pricing model than SC-GHG. SC-GHG is not specifically designed to estimate future fossil fuel prices, and there is no guarantee that the climate transition will force oil companies to fully internalize the costs of their products’ emissions. However, SC-GHG provides an accepted model for discounting the costs associated with GHG emissions, and one that is no less precise than the broad three-to-one ratio incorporated into the Proposed Rule. Whatever valuation model BOEM chooses, BOEM should ensure that any asset value test it adopts is based on a realistic estimate of the future value of assets, rather than prices under “existing economic conditions.”

3. To reduce risk from a large-scale climate-related decommissioning event, BOEM should calculate supplemental financial assurance requirements based on the P90 decommissioning liability projection, or adopt a liability model that explicitly considers sector-wide climate transition risk.

In the NPRM accompanying the Proposed Rule, BOEM requested comments on “the costs and benefits of setting the supplemental financial assurance requirements based on each of the P50, P70, and P90 decommissioning liability levels,” and in particular on “impacts to potential taxpayer liability” from decommissioning liability calculations. The Sabin Center recommends that BOEM should either (1) revise the Proposed Rule to use the most conservative cost estimates produced by the Bureau of Safety and Environmental Enforcement (BSEE)—the P90 projections; or (2) revise the Proposed Rule to use a cost model that explicitly considers sector-wide climate transition-driven demand risk.

The Bureau of Safety and Environmental Enforcement (BSEE) has long recognized that decommissioning cost estimates can be affected by industry-wide decommissioning trends. A 2017 white paper commissioned by BSEE emphasized that “demand impacts,” like the increases in decommissioning following BOEM’s “Idle Iron” Notice to Lessees (NTL No. 2010) or currently projected increases in global demand for decommissioning services, “may put upward pressure on

36 Proposed Rule at 42144.
decommissioning costs.”37 However, BSEE’s long-term pricing studies have excluded potentially significant factors like “[l]ong term shifts in energy patterns such as . . . reduced demand for fossil fuels due to widespread adoption of electric vehicles or increased renewable energy production.”38 Instead, BSEE has increasingly relied on historical data from U.S. offshore facilities.39 Yet the factors that BSEE excludes remain relevant to the decommissioning landscape. Electric vehicle sales, for instance, have increased by a factor of 12 since BSEE published its white paper on probabilistic modelling in 2017.40

Unless and until the probabilistic estimates generated by BSEE explicitly consider the demand impact of the climate transition, they will systemically underestimate decommissioning costs in the event of a large-scale climate-related decommissioning event. Given this acknowledged but unaccounted-for risk, BOEM should either (1) revise the Proposed Rule to use BSEE’s most conservative cost estimates—the P90 projections; or (2) revise the Proposed Rule to use another cost model that explicitly considers sector-wide demand risks posed by the climate transition.

4. Conclusion

The Sabin Center supports efforts to increase the amount, and quality, of collateral and financial assurance available to the federal government for fossil fuel decommissioning activities. Moreover, the Sabin Center supports revisions that clarify and streamline BOEM’s standards for supplemental bonding. In light of these considerations, the Sabin Center welcomes BOEM’s current rulemaking process.

However, BOEM’s financial assurance regime, as currently constructed and as envisioned in the Proposed Rule, fails to account for the increasing likelihood of sector-wide climate-related decommissioning events. To reduce the risk that these events pose to the American public, BOEM

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38 Id. § 10-8.

39 See Proposed Rule at 42143 (describing BSEE’s probabilistic modelling process and reliance on industry decommissioning reports provided pursuant to NTL 2016-N03).

should broadly eliminate self-bonding for decommissioning obligations. In the absence of such a change, BOEM should discount the value of proven reserves in any “Reserves-to-Decommissioning Cost Ratio” to account for climate-related asset stranding, and adopt stringent estimates of decommissioning liability that explicitly consider sector-wide climate transition risk.

The modifications suggested in this comment letter would make the Proposed Rule more consistent with the Biden Administration’s stated intent “to organize and deploy the full capacity of its agencies to combat the climate crisis to implement a Government-wide approach that . . . increases resilience to the impacts of climate change [and] conserves our lands, waters, and biodiversity.” Moreover, they are consistent with the longstanding goals of BOEM’s financial assurance regulations. Congress has authorized BOEM to collect financial assurance from offshore oil companies, and under that authority BOEM has developed a comprehensive system of regulations with the laudable goal of ensuring that these companies do not pass the costs of their decommissioning obligations on to the public. Faced with the economy-wide impacts of global climate change, BOEM must modify this system to protect the public from climate-related decommissioning events.

Sincerely,

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43 Proposed Rule at 42140.
DECOMMISSIONING LIABILITY AT THE END OF OFFSHORE OIL AND GAS:
A Review of International Obligations, National Laws, and Contractual Approaches in Ten Jurisdictions

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The Sabin Center for Climate Change Law develops legal techniques to fight climate change, trains law students and lawyers in their use, and provides the legal profession and the public with up-to-date resources on key topics in climate law and regulation. It works closely with the scientists at Columbia University’s Earth Institute and with a wide range of governmental, non-governmental and academic organizations.

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The Columbia Center on Sustainable Investment, a joint Center of Columbia Law School and Columbia Climate School, is an applied research center that works to develop critical understanding, practical approaches, and governance tools for governments, investors, communities, and other stakeholders to maximize the benefits and minimize the potential harms of international investment for sustainable development.

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EXECUTIVE SUMMARY

Offshore oil and gas infrastructure faces an existential threat: the increasing exigency of climate change. The Intergovernmental Panel on Climate Change projects that GHG emissions from existing and planned fossil fuel infrastructure will push global warming past the Paris Agreement’s 1.5°C threshold,¹ and more detailed projections estimate that “nearly 60 per cent of oil and fossil methane gas . . . must remain unextracted to keep within a 1.5 °C carbon budget.”² The growing urgency of climate action, coupled with the increasing adoption of renewable energy systems and energy-efficient technologies, may strand thousands of offshore oil and gas installations across the globe.³

This paper provides an overview of the statutory, regulatory, and contractual regimes governing offshore oil and gas decommissioning in ten countries, and qualitatively identifies key financial and environmental risks that might arise in a “rapid phase-out” scenario presented by the energy transition.⁴ In doing so, it highlights areas in which these regimes may create risks in a rapid phase-out scenario involving the widespread cessation of offshore oil and gas activities. The first part of this paper provides a high-level overview of the legal and economic structures that govern offshore oil and gas decommissioning, highlights gaps and risks that are presented by a rapid phase-out scenario, and presents recommendations for policymakers, academics, and industry participants to reform decommissioning laws in the face of the climate-driven energy transition. The second part, Appendices 1 through 10, provides overviews of the laws, regulations, and contracts governing offshore oil and gas decommissioning.


³ See infra Section 1: “Introduction.”

⁴ For the purposes of this paper, a “rapid phase-out” scenario refers to a scenario in which offshore hydrocarbon assets suffer either “economic stranding” from a change in the price of oil or cost of extraction or “regulatory stranding” from legal restrictions on offshore exploration or oil and gas products. See Stranded Assets, Carbon Tracker Initiative (Aug. 23, 2017), https://carbontracker.org/terms/stranded-assets/.

This paper is general, and does not attempt to quantify stranded offshore assets within any particular field or jurisdiction. However, studies of regional fossil fuel reserves have suggested that, in a transition scenario compatible with the Paris Agreement’s goal of limiting end-of-century global warming to 1.5°C, by 2050 up to 83% of oil reserves in some jurisdictions may be unextractable. Dan Welsby, James Price, Steve Pye, & Paul Ekins, Unextractable Fossil Fuels in a 1.5°C World, 597 Nature 230, 233 (Sept. 9, 2021), https://doi.org/10.1038/s41586-021-03821-8.
decommissioning in ten major oil- and gas-producing jurisdictions: Angola, Australia, Brazil, Indonesia, Malaysia, Mexico, Nigeria, Norway, the United Kingdom, and the United States.5

The potential rapid decline in offshore oil and gas is a matter of public concern because governments often sit as the “decommissioner of last resort.”6 Most countries with significant offshore oil and gas resources have laws, regulations, and contracts that require private offshore oil and gas companies, contractors, or investors (for simplicity, “oil companies”) to bear the cost of decommissioning their facilities.7 A formal assignment of legal liability, however, does not guarantee that decommissioning will occur or that funds will be available when decommissioning obligations arise. Even jurisdictions with extensive decommissioning experience and well-tested decommissioning regulations may be unprepared for the industry-wide decline associated with a rapid phase-out of offshore oil and gas production.

To protect the public in a rapid phase-out scenario, and to ensure that fossil fuel companies meet their decommissioning obligations, governments, policymakers, and industry participants must take four key steps:

1. **Create and regularly update comprehensive decommissioning plans.** Some jurisdictions prepare decommissioning plans only when an installation or field is approaching the end of its usable life.8 This approach may create bottlenecks and unnecessary delays in a rapid phase-out scenario, where offshore facilities may need to be quickly decommissioned long

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5 This overview was assembled through a review of English-language legal resources. These include academic and industry literature, along with government-produced primary sources or, where available, authoritative translations of those sources. However, offshore oil exploration is a politically and economically significant activity in each of the covered jurisdictions, and many jurisdictions have new or quickly evolving legal regimes. In addition, offshore oil installations have long lifespans, and the permits of specific existing installations may be issued under, and governed by, previous regulations, rules, or standards. While all efforts were made to ensure that these overviews are accurate, current, and broadly applicable, the authors caution against using this paper as the primary tool to assess legal duties with respect to any specific offshore installation.


8 See **infra** Section 5.1: “Gaps, Risks, and Areas for Exploration: Responsibility for Decommissioning.”
before the ends of their previously anticipated lifespans. To prepare for a rapid phase-out, governments should require the operators of all offshore oil and gas facilities to create and regularly update comprehensive decommissioning plans.

2. Reexamine decommissioning security mechanisms. Legal mechanisms like collateral packages, guarantees, and funding structures are often predicated on assumptions that oil and gas assets will remain valuable and that oil companies will remain solvent. In the face of the transition away from fossil fuels, these assumptions may be incorrect. Policymakers and industry participants should examine these mechanisms to ensure that they are compatible with a rapid phase-out scenario, paying particular attention to three security mechanisms:
   a. Guarantees, insurance, self-insurance, and third-party pledges provided by entities that are heavily exposed to the oil and gas industry may be particularly vulnerable to the systemic devaluation of oil and gas assets.
   b. Collateral packages that depend on the value of concession agreements or unextracted fossil fuel assets may lose value in a field-wide rapid phase-out.
   c. Decommissioning funds that are funded gradually over the course of an asset’s anticipated life may be underfunded if assets are decommissioned early.

3. Evaluate and plan for the tax consequences of industry-wide decommissioning. Offshore decommissioning is an expensive obligation that occurs at the end of a facility’s economic life, and may significantly affect the economics of decommissioning a particular facility. Policymakers and industry participants who are planning for decommissioning expenditures should ensure that they are aware of, and prepared for, the tax implications of a rapid phase-out affecting the entire oil and gas industry.

4. Evaluate and modify stabilization clauses to accommodate a rapid phase-out. In evaluating their policies, governments should be aware that stabilization clauses in investor-state oil and gas contracts may shift or create additional burdens around early offshore decommissioning. Governments should consider modifying stabilization clauses in line with international best practices to allow them to mandate early decommissioning if offshore decommissioning is anticipated before the end of the facility’s previously anticipated lifespan.

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9 See infra Section 5.3: “Gaps, Risks, and Areas for Exploration: Guarantee, Bonding, and Security Arrangements.”
10 See infra Section 4.3: “Tax Treatment of Decommissioning.”
11 See infra Section 5.5: “Gaps, Risks, and Areas for Exploration: Stabilization Clauses.”
assets become legally impaired or otherwise “stranded” by the transition away from fossil fuels.
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1. INTRODUCTION

In 1897, the first offshore oil well was drilled “at the end of a wharf, 300 feet off the coast of Summerland, California.” Today, more than 12,000 offshore oil and gas installations straddle the globe, from the Perdido spar moored in 8,000-foot deep water off the Gulf of Mexico to the 200,000 ton Berkut oil platform on the east coast of Russia. Industry analysts anticipate annual offshore oil and gas investments to reach USD 173 billion by 2024. A number of oil and gas companies are expected to significantly expand their offshore drilling activities in the coming years. At the same time, many jurisdictions face a growing need to decommission their offshore oil and gas infrastructure, whether because the infrastructure is aging, the resources are depleted, or net-zero strategies require certain producing assets to be decommissioned earlier than expected. A 2021 forecast by IHS Markit estimated that global offshore decommissioning spending could cost nearly USD 100 billion between 2021 and 2030, a period that S&P Global Commodity Insights has described as a potential “decade of offshore decommissioning.” In the face of increasing demand for decommissioning, some have predicted that decommissioning costs may increase significantly.

Offshore oil and gas infrastructure also faces an existential threat: the increasing exigency of climate change. The Intergovernmental Panel on Climate Change projects that GHG emissions from


17 Benjamin Storrow, Offshore Oil is About to Surge, E&E CLIMATEWIRE (Mar. 22, 2023), https://www.eenews.net/articles/offshore-oil-is-about-to-surge/ (reporting on industry estimates that “offshore spending will eclipse $100 billion in 2023 and 2024”).


existing and planned fossil fuel infrastructure will push global warming past the Paris Agreement’s 1.5°C threshold,\(^20\) and more detailed projections estimate that “nearly 60 per cent of oil and fossil methane gas . . . must remain unextracted to keep within a 1.5 °C carbon budget.”\(^21\) Increased public focus on greenhouse gas emissions, coupled with the global push for electrification and declining prices for renewable energy, may cause a rapid decline in oil and gas demand that forces the mass closure of offshore installations.\(^22\) Even without policy changes or concerted climate action, the increasing adoption of renewable energy systems and energy-efficient technologies is likely to depress demand for fossil fuels.\(^23\)

The potential rapid decline in offshore oil and gas is a matter of public concern because governments often sit as the “decommissioner of last resort.”\(^24\) Most countries are parties to treaties that require them to remove abandoned offshore infrastructure and take other measures to avoid oceanic pollution.\(^25\) Even without international pressure, coastal states have a national interest in protecting their waters from environmental hazards like abandoned oil and gas facilities. For this reason, most countries with significant offshore oil and gas resources have laws, regulations, and contracts that require private offshore oil companies to bear the cost of decommissioning their facilities.\(^26\) A formal assignment of legal liability, however, does not guarantee that decommissioning will occur or that funds will be available when decommissioning obligations arise.

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\(^{23}\) See Fabio Panetta, Member of the Executive Board of the ECB, Italian Banking Association (Nov. 16, 2022), (transcript available at the following link: https://www.ecb.europa.eu/press/key/date/2022/html/ecb.sp221116-c1d5160785.en.html (discussing “green innovation” as a source of demand pressure on fossil fuel producers).


\(^{25}\) See infra Section 2.1: “International Law.”

This paper provides an overview of statutory, regulatory, and contractual regimes governing liability for decommissioning of offshore oil and gas infrastructure to highlight areas in which these regimes may create risks in a “rapid phase-out” scenario involving the widespread cessation of offshore oil and gas activities. The challenges posed by oil and gas decommissioning are not novel. While some jurisdictions like Brazil have conducted relatively little offshore decommissioning, others like the United States have decades of experience decommissioning deepwater installations. A large body of academic, industry, and government research addresses the legal and economic mechanisms underlying offshore decommissioning. However, little research focuses on the risks that these mechanisms create in a rapid phase-out scenario, where offshore oil and gas assets are rapidly stranded by economic or legal forces. The overarching goal of this paper is to understand the global landscape of statutory, regulatory, and contractual regimes governing offshore oil and gas decommissioning, and to help identify key financial and environmental risks that might arise in a rapid phase-out scenario presented by the energy transition. This paper will inform future research projects and policy recommendations aimed at ensuring that oil companies are held responsible for environmental remediation, and that those liabilities are adequately funded.

27 The analysis of contractual regimes for each jurisdiction focuses on the two or three most recently concluded investor-state contracts governing offshore petroleum operations retrieved as of May 19, 2022, from ResourceContracts.org, the largest online repository of publicly available oil, gas, and mining contracts. See “ResourceContracts.org - Search Contracts,” Resource Contracts (website), Natural Resource Governance Institute (NRGI), CCSI, World Bank Group, and Open Oil, https://www.resourcecontracts.org/contracts.

The contracts analyzed may have been concluded before the enactment of the latest regulations analyzed in this paper. Certain contracts may include stabilization clauses that freeze the regulatory landscape, preventing new or modified laws from affecting investors and private companies. For further analysis, see Martin Dietrich Brauch, Esteban F. Fresno Rodriguez, and José Luis Gallardo Torres. Provisions on Liability for Decommissioning Upstream Offshore Oil and Gas Infrastructure in Investor–State Contracts. NEW YORK: COLUMBIA CENTER ON SUSTAINABLE INVESTMENT (CCSI), forthcoming September 2023, https://ccsi.columbia.edu/decommissioning-offshore.

28 While Brazil is currently preparing for a wave of offshore decommissioning, industry analysts note that the current period is “the first time that Brazil has seen major decommissioning activity.” Brazil O&G Sector Enters Major Decommissioning Phase with Stronger ESG Demands, BNAMERICAS (Feb. 16, 2023), https://www.bnamicas.com/en/news/brazil-og-sector-enters-major-decommissioning-phase-with-stronger-ESG-demands.

29 Keith B. Hall, Decommissioning of Offshore Oil and Gas Facilities in the United States, 14 CHARLESTON L. REV. 437, 443 (2020) (noting that between 2002 and 2017 approximately 1500 platforms and many other structures were “removed from federal waters in the Gulf of Mexico.”).

30 “Stranded assets are . . . those assets that at some time prior to the end of their economic life (as assumed at the investment decision point), are no longer able to earn an economic return (i.e. meet the company’s internal rate of return), as a result of changes associated with the transition to a low-carbon economy (lower than anticipated demand / prices).” Stranded Assets, CARBON TRACKER INITIATIVE (Aug. 23, 2017), https://carbontracker.org/terms/stranded-assets/.
The first part of this paper provides a high-level overview of the legal and economic structures that govern offshore oil and gas decommissioning. Section 2 discusses the sources of decommissioning law, which spring from a mix of international, national, and contractual structures. The bulk of this section focuses on treaties and standards that create obligations for states that explore offshore oil and gas, and set a baseline for decommissioning obligations. Depending on the jurisdiction, these international law obligations may or may not be transposed into national law, or otherwise applied to private sector actors through statutes, regulations, and contracts. Section 3 discusses the way in which jurisdictions allocate liability for decommissioning. Section 4 discusses the various financing mechanisms that affect decommissioning. These mechanisms include the funding structures that control when and how decommissioning liabilities are paid, the guarantee, bonding, and security arrangements that ensure decommissioning liabilities will be paid, and the tax implications of decommissioning finance. Section 5 briefly highlights gaps and risks that are presented by the previously discussed mechanisms in a rapid phase-out scenario.\(^{31}\) Throughout the section, theoretical discussions are colored and given context by specific examples from oil- and gas-producing jurisdictions. Finally, Section 6 provides general recommendations for policymakers, academics, and industry participants seeking to protect the public in a rapid phase-out scenario and to ensure that fossil fuel companies meet their decommissioning obligations.

The second part of this paper, Appendices 1 through 10, provides overviews of the laws, regulations, and contracts governing decommissioning in ten major oil- and gas-producing jurisdictions across the world: Angola, Australia, Brazil, Indonesia, Malaysia, Mexico, Nigeria, Norway, the United Kingdom, and the United States.\(^ {32}\) These jurisdictional overviews focus on the

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\(^{31}\) For the purposes of this paper, a “rapid phase-out” scenario refers to a scenario in which offshore hydrocarbon assets suffer either “economic stranding” from a change in the price of oil or gas or cost of extraction or “regulatory stranding” from legal restrictions on offshore exploration for oil or gas products. See Stranded Assets, CARBON TRACKER INITIATIVE (Aug. 23, 2017), https://carbontracker.org/terms/stranded-assets/.

This paper is general, and does not attempt to quantify stranded offshore assets within any particular field or jurisdiction. However, studies of regional fossil fuel reserves have suggested that, in a transition scenario compatible with the Paris Agreement’s goal of limiting end-of-century global warming to 1.5°C, by 2050 up to 83% of oil reserves in some jurisdictions may be unextractable. Dan Welsby, James Price, Steve Pye, & Paul Ekins, Unextractable Fossil Fuels in a 1.5°C World, 597 NATURE 230, 233 (Sept. 9, 2021), https://doi.org/10.1038/s41586-021-03821-8.

\(^{32}\) This overview was assembled through a review of English-language legal resources. These include academic and industry literature, along with government-produced primary sources or, where available, authoritative translations of those sources. However, offshore oil and gas exploration is a politically and economically significant activity in each of
2. SOURCES OF LAW GOVERNING DECOMMISSIONING OBLIGATIONS

2.1 International Law

Several longstanding multilateral treaties govern the general decommissioning obligations of coastal states, and these treaties are further supplemented by regional agreements and internationally accepted standards. These international agreements and standards are not generally the primary source of decommissioning obligations for offshore oil companies. However, these international and regional frameworks set standards and customary obligations that are referenced in and incorporated by national laws, regulations, and contracts. Oceanic treaties also set the outer boundaries for state conduct, and several widely-subscribed treaties require states to ensure the safe removal of abandoned offshore installations in their jurisdictions. Perhaps in recognition of these obligations, jurisdictions like the United Kingdom often describe the nation (or its taxpayers) as the “decommissioner of last resort.”

2.1.1 Major Multilateral Treaties

The international law of offshore decommissioning has its roots in the 1958 Geneva Convention on the Continental Shelf (the “Geneva Convention”). The Geneva Convention governs

the covered jurisdictions, and many jurisdictions have new or quickly evolving legal regimes. In addition, offshore oil and gas installations have long lifespans, and the permits of specific existing installations may be issued under, and governed by, previous regulations, rules, or standards. While all efforts were made to ensure that these overviews are accurate, current, and broadly applicable, the authors caution against using this paper as the primary tool to assess legal duties with respect to any specific offshore installation.

33 For example, Nigeria’s Petroleum Industries Act of 2021 explicitly requires decommissioning to align with the standards prescribed by the International Maritime Organization. Petroleum Industries Act (2021) Cap. (2) § 232(1)(a)–(b), O.G. A.121, A.271 (Nigeria); see infra Appendix 7 (discussing Nigeria’s decommissioning regime).

34 CONSULTATION ON ESTABLISHING THE OFFSHORE DECOMMISSIONING REGIME FOR CO2 TRANSPORT AND STORAGE NETWORKS 36, U.K. DEPARTMENT FOR BUSINESS, ENERGY & INDUSTRIAL STRATEGY (Aug. 2021),
the use of the sea and seabed on the “continental shelf,”35 and its drafters were not primarily concerned with environmental preservation.36 However, the Geneva Convention provides that “[a]ny [continental shelf] installations which are abandoned or disused must be entirely removed.”37

The 1972 Convention on the Prevention of Marine Pollution by the Dumping of Wastes and Other Matter (the “London Convention”) was the first international convention to take a comprehensive approach to “the protection of the marine environment from human activities,” such as the abandonment of oil and gas infrastructure.38 The London Convention governs the intentional dumping of waste at sea, and its definition of “dumping” includes “any deliberate disposal at sea of . . . platforms or other man-made structures at sea.”39 The London Convention and a 1996 protocol designed to modernize and eventually replace it take a “reverse list” approach, “which implies that all dumping is prohibited unless explicitly permitted.”40 However, the London Convention allows oil and gas infrastructure to be decommissioned in place so long as its placement serves a purpose other than disposal. This has been interpreted to allow certain “reefing” programs, where abandoned platform infrastructure is used as the basis for artificial reefs.41 As of the date of this

35 As used in the Geneva Convention, the “continental shelf” is defined as “(a) to the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas;” and “(b) to the seabed and subsoil of similar submarine areas adjacent to the coasts of islands.” Geneva Convention on the Continental Shelf art. 1, Apr. 29, 1958, 499 U.N.T.S. 311.
report, there are 87 parties to the London Convention and 53 parties to the 1996 modernization protocol.\textsuperscript{42}

Since 1982, the Geneva Convention has been largely supplanted by the United Nations Convention on the Law of the Sea (“UNCLOS”). UNCLOS “supersedes the 1958 conventions . . . for States who are parties to UNCLOS.”\textsuperscript{43} UNCLOS was designed “as a framework convention and a living instrument,” and its environmental protection provisions in particular contain many “rules of reference” that anticipate the development of both global and regional standards.\textsuperscript{44} UNCLOS has 168 parties and is “one of the most widely ratified treaties.”\textsuperscript{45} However, the United States, a significant offshore oil and gas producer, has not ratified UNCLOS and remains subject to the Geneva Convention (see Box 1: The United States and UNCLOS).

As a general matter, UNCLOS establishes that coastal states are the primary regulators of offshore activity on their adjacent continental shelf, and gives these states “the exclusive right to authorize and regulate drilling on the continental shelf for all purposes.”\textsuperscript{46} With respect to decommissioning, UNCLOS Article 60(3) requires that, if states build or allow offshore facilities, “[a]ny installations or structures which are abandoned or disused shall be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by the competent international organization.”\textsuperscript{47}

This decommissioning rule has three significant features. First, UNCLOS abandons the Geneva Convention requirement of complete removal. This concession has been credited to the fact


that, by the 1980s, “the oil and gas industry was operating in deeper waters and harsher and more remote environments, using heavy structures that were more difficult and expensive to remove.” Instead, Article 60(3) allows the partial removal of offshore facilities, so long as states give “[a]ppropriate publicity . . . to the depth, position and dimensions of any installations or structures not entirely removed.” Second, Article 60(3) explicitly includes environmental protection as a goal of decommissioning. While the text of the rule prioritizes “safety of navigation,” it also provides that removal must “have due regard to fishing, the protection of the marine environment and the rights and duties of other States.”

Third, and most significantly, Article 60(3) contains one of the “rules of reference” mentioned earlier in this subsection. It requires that decommissioning of offshore installations must “tak[e] into account any generally accepted international standards established . . . by the competent international organization.” This requirement assumes that states and international organizations will negotiate and promulgate “additional instruments through other international institutions” that will detail the decommissioning obligations under Article 60(3).

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48 Alexandra Wawryk, *International Regulation of Decommissioning*, in *The Regulation of Decommissioning, Abandonment and Reuse Initiatives in the Oil and Gas Industry: From Obligation to Opportunities* 27, 30 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).


50 *Id.*
THE UNITED STATES AND UNCLOS

While UNCLOS is one of the most widely adopted treaties, and the United States was heavily involved in its drafting and negotiation, the United States is one of the few countries in the world that is not a party to UNCLOS.1 As “the United States has yet to ratify the UNCLOS, [it] consequently is not bound by its terms.”2 The United States remains bound instead by the Geneva Convention and the London Convention, as well as by the terms of various multilateral and bilateral treaties.3

However, UNCLOS is not entirely irrelevant in American law. Since 1983, the executive branch of the United States has had an official policy of aligning its actions with the balance of interests codified in UNCLOS,4 and U.S. courts occasionally look to UNCLOS as “a codification of customary international law.”5

2 Eduardo Canales, Steven P. Oillar, United States, in OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE 415, 422 (Marc Hammerson & Nicholas Antonas eds., 2nd ed. 2016).
3 Id.

Box 1: The United States and UNCLOS

2.1.2 IMO Guidelines and Regional Conventions

Within the broad framework of UNCLOS, many additional decommissioning standards have been set through regional treaties or through generally accepted standards set by an international organization. This subsection only lists a small set of the many international agreements that have implications for offshore oil and gas decommissioning. Offshore oil and gas rigs are complex physical infrastructure projects, and decommissioning may be affected by a number of seemingly unrelated treaties, including environmental and human rights treaties (see Box 2: Mexico, Indigenous Rights, and Decommissioning Obligations under Non-Decommissioning Treaties).

The most prominent international organization addressing offshore decommissioning is the International Maritime Organization (“IMO”), a U.N. specialized agency that supported the initial
negotiation of UNCLOS.51 IMO is “is the global standard-setting authority for the safety, security and environmental performance of international shipping.”52 In 1989 the IMO issued its Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone (the “IMO Guidelines and Standards”). The IMO Guidelines and Standards provide significant technical guidance on when and how decommissioning should commence. This guidance addresses (1) when coastal states must commence decommissioning, (2) environmental and safety considerations affecting decommissioning, and (3) standards outlining whether complete or partial removal is appropriate.53 The IMO Guidelines and Standards are not legally binding in and of themselves, but “provide minimum standards and allow the coastal states wide discretionary powers as to their adoption in national law.” 54 These international decommissioning standards may be incorporated by reference into oil and gas contracts. For example, Brazil’s 2018 model concession contract sets decommissioning standards by reference to international petroleum industry standards at the time of abandonment.55

Many countries are also members of regional bodies under the United Nations Environment Programme’s “Regional Seas Programme,” which administers a number of regional organizations and treaty bodies that work to protect marine and coastal environments and “promote sustainable development.”56 One of the most prominent is the 1992 Convention for the Protection of the Marine Environment of the Northeast Atlantic (the “OSPAR Convention”). The OSPAR Convention coordinates activity with the goal of “protecting the marine environment of the North-East Atlantic”

51 The IMO's Guidelines have been described as “the most comprehensive and widely accepted international standard on the decommissioning of offshore platforms.” Leon Moller, *U.N. Law on Decommissioning Offshore Installations, in OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE* 21, 28 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).


and “ensur[ing] sustainable management” of the region.\textsuperscript{57} It sets out a detailed framework surrounding decommissioning, and enshrines a strong presumption against decommissioning-in-place.\textsuperscript{58} In addition, it emphasizes a “polluter pays principle” that “requires that the costs of pollution prevention, control and reduction measures must be borne by the polluter.”\textsuperscript{59} The OSPAR Convention has been ratified by 15 states and the European Union.\textsuperscript{60}

Other regional treaty bodies have established their own decommissioning rules or guidelines. In 1989 the Association of South East Asian Nations (“ASEAN”) created the ASEAN Council on Petroleum (“ASCOPE”) to coordinate “the development of the petroleum resources in the region.”\textsuperscript{61} In 2012 ASCOPE released a set of decommissioning guidelines that “provide a technical reference document for decommissioning in the ASEAN region and expand on the general principles set out in UNCLOS and the IMO Guidelines.”\textsuperscript{62} These guidelines “are intended to complement national decommissioning procedures, rather than replace them.”\textsuperscript{63}

\footnotesize{\begin{itemize}
\item \textsuperscript{57} Alexandra Warwryk, Catherine Banet & Eduardo G. Pereira, \textit{Regional Seas Conventions and Decommissioning}, in \textit{THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES} 47, 52 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).
\item \textsuperscript{58} Id. at 54–55.
\item \textsuperscript{59} \textit{Polluter Pays Principle, OSPAR CONVENTION} (n.d.), \url{https://www.ospar.org/convention/principles/polluter-pays-principle}.
\item \textsuperscript{60} These states are Belgium, Denmark, the European Union, Finland, France, Germany, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom. \textit{OSPAR Convention, OSPAR CONVENTION} (n.d.), \url{https://www.ospar.org/convention}.
\item \textsuperscript{61} \textit{Declaration for the Establishment of the ASEAN Council on Petroleum (Ascope)} § 1, 6 ASEAN Economic Bulletin 189 (Nov. 1989).
\item \textsuperscript{63} Id.}

MEXICO, INDIGENOUS RIGHTS, AND DECOMMISSIONING OBLIGATIONS UNDER NON-DECOMMISSIONING TREATIES

In 1990 Mexico ratified the 1989 Convention Concerning Indigenous and Tribal Peoples in Independent Countries (“ILO Convention 169”). ILO Convention 169 provides, among other measures, that indigenous and tribal peoples have the right to consult on and participate in decision-making processes “whenever consideration is being given to legislative or administrative measures which may affect them directly.”

ILO Convention 169 makes no mention of decommissioning, and was not initially viewed as a significant part of Mexico’s infrastructure law. However, in 2010 the Huichol people of Western Mexico used ILO Convention 169 as the basis for their opposition to a massive silver mine in Wirikuta, an important religious pilgrimage site for the Huichol.

Following this dispute, Mexico enacted legislation mandating that infrastructure developments, including oil and gas infrastructure, must comprehensively consult with any affected indigenous communities. These consultations “must include the intended final destination of decommissioned oil and gas infrastructure, and must thoroughly inform [affected communities] of the consequences of total decommissioning or leaving the [infrastructure] behind.”

Mexico’s offshore energy infrastructure is often developed in areas where no indigenous consultation is needed, but some decommissioning activities may impact neighboring indigenous communities and trigger consultation rights.


Box 2: Mexico, Indigenous Rights, and Decommissioning Obligations under Non-Decommissioning Treaties
2.2 National and Subnational Law

While the international treaties, frameworks, and organizations discussed in the previous section affect the obligations of national governments and coordinate important shared interests among regions, each state is the primary regulator of offshore oil and gas exploration and production activities in the waters over which it has jurisdiction.\(^{64}\) In addition to national law, offshore oil and gas decommissioning may be subject to significant sub-national regulation. For example, the United States has allocated ownership of and regulatory authority over near-coastal lands to its constituent states under the Submerged Lands Act of 1983.\(^{65}\)

Countries that regulate offshore infrastructure at the subnational level can have significantly different decommissioning rules for different installations. In Australia, for example, offshore oil and gas installations within 3 nautical miles of the coast are governed by the law of the adjacent State or Territory, while more distant installations are governed by the Commonwealth of Australia.\(^{66}\) Prior to 2021, “the regulatory schemes for offshore decommissioning in Victoria and [Western Australia],” the two states with the most offshore petroleum activities, were very similar to the national regime.\(^{67}\) However, in 2021 the Commonwealth of Australia revised its decommissioning laws to introduce a scheme of “trailing liability” for decommissioning expenses.\(^{68}\) Following the 2021 amendments, Western Australia’s relevant regulator, released a draft discussion paper suggesting that it would not immediately adopt the Commonwealth’s trailing liability scheme.\(^{69}\) In contrast, the

\(^{64}\) Alexandra Wawryk, \textit{Introduction, in The Regulation of Decommissioning, Abandonment and Reuse Initiatives in the Oil and Gas Industry: From Obligation to Opportunities} 3, 5 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).


\(^{67}\) Alexandra Wawryk, \textit{Australia, in The Regulation of Decommissioning, Abandonment and Reuse Initiatives in the Oil and Gas Industry: From Obligation to Opportunities} 251, 269 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

\(^{68}\) See \textit{infra} Section 3.1.2: “Trailing Liability.”

government of Victoria seems more open to following the Commonwealth’s model, and “has already announced an intention to introduce trailing liability for decommissioning coal mines.”

The governance of offshore oil and gas resources can be a point of tension between national and sub-national governments. For example, since 2018 there have been a series of disputes between Malaysia’s federal government and its constituent states over ownership of and authority over petrochemical resources. The states of Sarawak and Sabah in particular have argued that agreements underlying their membership in the Malaysian Federation negate federal allocations of authority to PETRONAS, Malaysia’s state-owned oil and gas company. Despite years of legal battles and a settlement agreement that included a USD 715 million payment from PETRONAS to Sarawak, jurisdiction over and ownership of petrochemicals remain subject to inter-governmental disputes.

2.3 Contracts

In many states, contracts and other negotiated legal instruments form a vital part of the regulatory regime governing offshore oil and gas activities. Contracts play a particularly important role where a jurisdiction’s legal framework assigns ownership of offshore natural resources to the host state; in these jurisdictions, private sector and public sector companies must participate in offshore oil and gas exploration and production through contracts, leases, or other agreements signed with the state, a specific ministry or agency, or a national oil company. These contracts can generally be categorized into three types: concession agreements, production sharing contracts,

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73 See Roger Chin, President of the Sabah Law Society, Opening of the Legal Year 2023 (Jan. 13, 2023) (transcript available at the following link: https://www.sabahlawsociety.org/userfiles/media/sabahlawsociety.org/sls-speech-for-oly-2023-miri_1.pdf) (discussing legal theories addressing the distribution of ownership of offshore oil resources between Malaysia’s federal government and the State of Sabah); see infra Annex 5.A (discussing the dispute in more depth).
(“PSCs”), and technical services agreements (see Box 3: Primary Types of Offshore Oil and Gas Contract).74

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**Box 3: Primary Types of Offshore Oil and Gas Contract**

In jurisdictions that use contracts to govern offshore oil and gas operations, the contractual provisions supplement and provide detail to the applicable national legal and regulatory framework. While domestic statutes, decrees, and regulations that are universally applied to private

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oil companies provide transparency and public certainty around decommissioning, negotiated contractual provisions often play a more fundamental role in governing decommissioning operations in jurisdictions with vague, fragmented, or nonexistent regulatory frameworks. However, as discussed below, not every offshore contract imposes or allocates decommissioning obligations. In these cases, offshore decommissioning obligations are governed exclusively by generally applicable legal and regulatory frameworks.

Offshore oil and gas contracts may, in certain cases, supplant generally applicable laws. An extensive review of investor-state contracts signed between 2010 and 2018 found that “over 60% of the oil, gas and mining contracts have stabilization clauses” or change-in-law clauses, which limit the application of new or modified laws to contracts that have already been executed. These clauses can crystalize the host state’s legal and regulatory landscape, either precluding new or amended laws from applying to the oil company (known as freezing clauses) or requiring a host state to compensate the company for the financial impacts of the new or modified legislation (known as economic equilibrium clauses). There are also hybrid clauses that allow parties to specify which statutory or regulatory amendments should apply to the oil company and when the state must compensate the oil company for a change in the legal regime. Change-in-law clauses can apply to purely fiscal issues (taxes, royalties, rents, tariffs, etc.), nonfiscal areas (environment, labor, and health and safety), or both, and may or may not establish a limited timeframe during which the relevant laws are “stabilized.

Contracts from several of the jurisdictions on which this report focuses contained some form of stabilization clause. For example, a 2006 Angolan PSC analyzed for this report contains a change-in-law clause requiring the parties to renegotiate the PSC following any adverse legal change to

75 Aizawa and Mann, Environmental, Social and Economic Development Provisions in Investment Contracts, 100.
76 Martin Dietrich Brauch, Perrine Toledano, and Cody Aceveda, Allocation of Climate-Related Risks in Investor–State Mining Contracts 8, NEW YORK: COLUMBIA CENTER ON SUSTAINABLE INVESTMENT (CCSI), (June 2022), https://ccsi.columbia.edu/content/allocation-climate-change-risks-investor-state-mining-contracts.
“restore [the] rights, obligations, and benefits” of the original contract. Similarly, Malaysia’s 1994 model Production Sharing Agreement establishes that the parties must renegotiate the contract after any changes to the tax regimes of Malaysia or Thailand affecting the contract, in order to restore the oil company to “the same fiscal status” as originally anticipated by the contract.

3. LIABILITY FOR DECOMMISSIONING

3.1 Responsibility for Decommissioning

3.1.1 Owner/Operator Liability

Each jurisdiction examined for this report requires the private operators of offshore oil and gas infrastructure to either pay for its decommissioning or contribute to the cost of decommissioning. Some jurisdictions, like the United Kingdom, assign responsibility not just to the immediate operator of a facility but towards their owners “and their associated persons (such as affiliates and entities in which 50% or more of shares are held).”

While private parties may be legally responsible for costs, the statutory and contractual treatment of those costs in different jurisdictions may significantly redistribute the economic burden. Some investor-state contracts might directly share or redistribute decommissioning obligations. More subtly, profit-sharing agreements between private companies and host governments may redistribute the economic burdens of decommissioning by allowing private companies to recoup

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79 The provision reads, in relevant part: “in the event that any change in the provisions of any Law, decree or regulation in force in the Republic of Angola occurs subsequent to the signing of [the contract] which adversely affects the obligations, rights and benefits hereunder, then the Parties shall agree on amendments to the Agreement to be submitted to the competent authorities for approval, so as to restore such rights, obligations and forecasted benefits. Sociedade Nacional de Combustíveis de Angola - Empresa Pública (Sonangol, E.P.), Vaalco Angola (Kwanza) Inc., Sonangol Pesquisa e Produção S.A., InterOil Exploration and Production ASA, Production Sharing Agreement, 2006, Article 37.2, https://resourcecontracts.org/contract/ocds-591adf-366475125/view#pdf.


81 Alastair Young, Alistair Calvert, & Jameela Bond, Decommissioning Oil and Gas Wells in the UK – High Court Delivers Important Judgment with Ramifications for M&A Deals and the Provision of Decommissioning Security, BRACEWELL (June 1, 2021).

their decommissioning costs before any leftover profits are shared. For example, in Angolan Production Sharing Agreements (“PSAs”), while contractors are generally responsible for decommissioning expenses, they may recover the value of their planned contributions to decommission costs as “Cost Oil,” before the remaining revenue, the “Profit Oil,” is split between the contractor and Angola. Designating decommissioning funds as “Cost Oil” means that the burden is effectively shared between the private contractor and the government, assuming that enough revenue is produced to cover the expenses.

3.1.2 “Trailing Liability”

Under some legal regimes, former owners of an offshore installation can be ordered to pay for decommissioning expenses if the current owner is unable to do so. This mechanism, which is sometimes called “trailing liability,” is applied in various forms in Norway, the United Kingdom, and the United States, among other jurisdictions. Australia recently instituted trailing liability in 2021, following the high-profile collapse of a company that had recently acquired offshore assets from Woodside Petroleum, an Australian energy giant. The existence of a trailing liability regime “may have an effect on the commercial value of assets which are close to the end of their life.”

Regimes that provide for trailing liability often emphasize that the mechanism “is intended as an


84 Id. at 234–35.


86 Catherine Bannet, Norway, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 541, 553 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

87 Alastair Young, Alistair Calvert, & Jameela Bond, Decommissioning Oil and Gas Wells in the UK – High Court Delivers Important Judgment with Ramifications for M&A Deals and the Provision of Decommissioning Security, BRACERWELL (June 1, 2021).

88 See infra Section 16.2.1: “United States: Responsibility for Decommissioning.”

89 See Adam Morton, Calls for Woodside to Pay $200M to Clean Up Moribund Timor Sea Oil Site it Ran Until 2016, Guardian (Aug. 8, 2020), https://www.theguardian.com/australia-news/2020/aug/09/calls-for-woodside-to-pay-200m-to-clean-up-moribund-timor-sea-oil-site-it-ran-until-2016; see also Box 4: Australia’s Special Decommissioning Levy (discussing the transaction and bankruptcy).

option of last resort and is expected to be used rarely." A trailing liability regime, by itself, does not guarantee that liable former owners are actually capable of paying decommissioning expenses.

3.1.3 Government Liability

Governments may also assume direct responsibility for decommissioning costs, though they rarely do. In the 10 jurisdictions reviewed for this report, assumption of decommissioning liability was most common for governments that play a direct commercial role in the oil and gas industry. For example, Norway has commercial exposure to its oil and gas industry through two entities: Petoro, a wholly state-owned entity that takes an equity interest in some offshore licenses, and Equinor ASA, a (formerly state-owned) publicly traded energy company that operates “about 70% of all oil and gas production on the Norwegian shelf.” Norway owns a 67% stake in Equinor, although Equinor is “run on a commercial basis” and has operations across the world. Both of these entities have decommissioning obligations under Norwegian law; Petoro is liable for its own share of decommissioning costs alongside private stakeholders, and Equinor has significant decommissioning liability of its own despite Norway’s equity stake.

Governments can also assume decommissioning responsibilities if they take over an offshore installation following the exit of a private company. For example, in Indonesia a recent regulation allows Pertamina, Indonesia’s state-owned oil company, to take over private offshore operations on the expiration of the facility’s PSC, regardless of “whether the initial Contractor has applied for an

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93 Id.

94 Id.

95 HANNE STORESTEIN & GURO KRISTOFFERSEN LYSNES, LIABILITY FOR DECOMMISSIONING OF OIL AND GAS INSTALLATIONS ON THE NORWEGIAN CONTINENTAL SHELF: NORWEGIAN PUBLIC AND PRIVATE LAW PERSPECTIVES 7 (Univ. Bergen May 10, 2022).


97 MEMR Regulation No. 23 of 2021.
extension.” 98 This affects decommissioning liability because this regulation “also stipulates that outstanding post-operation obligations of a PSC nearing expiry are to be carried out by the entity that has been appointed by the [Ministry of Energy and Mineral Resources] to resume the PSC.” 99 In the event of a takeover, that entity would be Pertamina.

### 3.1.4 Decommissioning Provisions

Decommissioning obligations may be assigned and defined by designated decommissioning provisions in oil and gas contracts. Contracts that address decommissioning obligations adopt a variety of approaches. Decommissioning provisions may range from simple references to the parties’ statutory obligations or unelaborated references to “decommissioning,” to clauses that only address a portion of the decommissioning process, to comprehensive decommissioning obligations. Many contracts fail to address decommissioning at all, and rely entirely on external legal frameworks to govern the decommissioning process.

The amount of detail contained in contracts varies significantly. One set of contracts simply make reference to the general legal framework governing decommissioning. For example, a 2003 Nigerian contract examined for this report does not prescribe decommissioning standards, but assigns decommissioning liability to one of the private parties 100 and provides that the decommissioning process shall be carried out in accordance with specified regulations and guidelines issued by the Nigerian Department of Petroleum Resources. 101 A 2021 contract from the United Kingdom similarly contains few specific decommissioning requirements, but simply provides that decommissioning must occur with “the consent in writing of the Oil and Gas Authority.” 102 Other contracts may outline decommissioning obligations that embrace a broad spectrum of activities. Nigerian contracts from 2007 and 2011 explicitly encompass a variety of

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99 Id.


101 Id. at Article 14.4.

“decommissioning” activities, including the plugging and abandonment of wells, the removal and disposal of equipment and facilities including well heads, processing and storage facilities, platforms, pipelines, transport and export facilities, roads, buildings, wharves, plants, machinery, fixtures, the restoration of sites and structures, and the payment of damages to property lessors.103

3.2 Post-Decommissioning Liability

Often, private offshore operators remain liable long after decommissioning, both for the adequacy of their decommissioning work and for any environmental harms that may arise from their offshore operations. For example, the United Kingdom provides that the owners of an offshore installation or pipeline at the time of its decommissioning “remain the owners of any residues and remains after decommissioning,” and “[r]esidual liability remains with the owners in perpetuity.”104 “The relinquishment of the field licence is not related to completion of a decommissioning programme or any ongoing liabilities under it.”105 In practice, however, liability to third parties is limited by principles of English and Scottish common law, which provides that the owner of an offshore installation is only liable for “loss arising from his or her negligence in circumstances where a duty of care is owed to the other party.”106

In other cases, a host government might assume post-decommissioning liability after it confirms that the private party has adequately completed its decommissioning obligations. For example, modern Production Sharing Agreements in Angola provide that if Angola requires a private contractor to surrender an offshore installation, the private contractors “shall have no further


105 Id. at 73.

106 John Patterson, United Kingdom, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 631, 642 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).
liability or obligation” in connection with that infrastructure “save in the event of gross negligence or willful misconduct in the execution of the abandonment obligations.”

A 2018 presidential decree provides that once decommissioning is complete and a satisfactory post-decommissioning inspection has occurred, Angola’s designated concessionaire must “issue a release of liability and indemnity agreement” for the private operators.

4. FINANCING DECOMMISSIONING

4.1 Decommissioning Funding Structures

4.1.1 Pay-as-you-go

As a general matter, where a private party is liable for decommissioning costs and no other funding structure is provided by statute or regulation, decommissioning expenses are paid when they are incurred. This mechanism is fairly common, and jurisdictions as diverse as Australia and Norway fund decommissioning obligations on a “pay-as-you-go” basis. This structure can pose obvious default risks unless the party bearing default obligations has diversified income streams, since decommissioning obligations and their related payments usually occur at the end of an offshore asset’s life “when the relevant field is most likely producing negative cash flow.”


109 This does not preclude private parties from establishing their own prefunding structures, either contractually or as an internal cash management tool.

110 Australia’s primary law regulating offshore decommissioning, the Offshore Petroleum and Greenhouse Gas Storage Act 2006, does not establish decommissioning financing structures, “nor is there an industry or statutory fund to cover decommissioning.” Alexandra Wawryk, Australia, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 251, 261 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

111 See Frode Vareberg, Parent Company Guarantee Requirement for Future Decommissioning Cost in Corporate Transfers on NCS, LEXOLOGY (Dec. 18, 2017), https://www.lexology.com/commentary/energy-natural-resources/norway/simonsen-vogt-advokatfirma/parent-company-guarantee-requirement-for-future-decommissioning-cost-in-corporate-transfers-on-ncs (noting that some have advocated for the establishment of decommissioning funds, but “there is no indication that the ministry is actively considering such solutions.”).

4.1.2 Designated Fund

Some jurisdictions require offshore operators to reserve funds that are designated for decommissioning costs. These funds may be referred to as “provisioning funds,” or “trust funds,” among other names. These funds are often held in third party banks, and host governments may be designated as beneficiaries or otherwise given a senior claim over these funds to satisfy decommissioning costs.\(^{113}\) The account controls and security mechanisms created to govern these funds are discussed at greater length in 4.2.3: Designated Funds, below.

Jurisdictions that adopt a “designated fund” model must also address the allocation of liability if reserved funds do not meet actual decommissioning expenses. States take a variety of approaches to this issue. A 2003 Nigerian contract analyzed for this report, for example, explicitly makes the private partner responsible for any shortfall (or surplus) arising from the decommissioning or abandonment operations.\(^{114}\) A 2006 Angolan contract, in contrast, simply requires the parties to renegotiate to “agree on the method of covering the additional costs” where preestablished decommissioning funds “are insufficient to cover the abandonment and decommissioning costs.”\(^{115}\) At the other end of the spectrum, some oil companies entirely disclaim any contractual or statutory duties to make up decommissioning fund shortfalls.

4.2 Guarantee, Bonding, and Security Arrangements

Decommissioning offshore oil and gas infrastructure can be a laborious and expensive process.\(^{116}\) As decommissioning usually occurs at the end of infrastructure’s economic life, when

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\(^{116}\) “Though worldwide estimates vary greatly, on average, removing a complete platform in shallow waters such as in the Gulf of Mexico may cost [USD] 15 million to [USD] 20 million. Removing structures from deep water, as in the North Sea, could cost between [GBP] 30 million for smaller platforms and [GBP] 200 million for larger structures.” Rajesh Chhabara, Offshore Oil Rigs: Can Decommissioning Ever Be Green?, REUTERS EVENTS (Sept. 1, 2009), https://www.reutersevents.com/sustainability/stakeholder-engagement/offshore-oil-rigs-can-decommissioning-ever-be-green
operating entities may lack cash flows to offset these expenses, states apply a wide variety of economic tools to ensure that the cost of decommissioning is borne by the responsible party. Most of these tools can be grouped into three categories: (1) self-insurance and asset pledges, (2) third-party guarantees, and (3) designated funds.

4.2.1 Self-Insurance and Asset Pledges

Some jurisdictions, like Australia\(^{117}\) and Brazil,\(^{118}\) allow companies with anticipated decommissioning obligations to provide self-insurance. These governments or their concessionaires may either waive security obligations entirely for private companies with a high enough equity value, or else allow these companies to secure their decommissioning obligations through priority pledges of their assets.\(^{119}\) Brazil, which allows companies to choose their security mechanisms from a wide array of financial instruments, has created a special category of decommissioning asset pledge tied to the value of a company’s offshore oil and gas exploration rights. Under Brazilian law, companies that hold exploration and production rights in multiple oil and gas fields can secure their decommissioning obligations in one field by pledging their rights over the offshore field offers oil or gas production from another field . . . as a guarantee of decommissioning costs.”\(^{120}\)

4.2.2 Third-Party Guarantees

Jurisdictions may also require parties to secure their decommissioning obligations through insurance, parent company guarantees, letters of credit, or other third-party financial instruments. These economic instruments can take a staggering array of forms, and may be subject to complex and detailed technical restrictions. Brazil, for example, allows private companies to secure their offshore decommissioning obligations through letters of credit and insurance bonds issued by

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119 These self-insurance regimes can pose evident risks in the event of a rapid phase-out. See Section 5.3.1: “Gaps, Risks, and Areas for Exploration: Self-Insurance and Collateral Risk.”
financial institutions that are authorized to operate in (or have affiliates who operate in) Brazil.\textsuperscript{121} These instruments are subject to detailed requirements, including minimum durations and risk ratings.\textsuperscript{122}

One jurisdiction that combines both mandatory and voluntary third-party guarantees is Norway. While Norway does not have standardized decommissioning security structures, Norway’s Petroleum Act allows the Ministry of Petroleum and Energy to require a licensee to provide security, either when the license is granted or at any time afterwards.\textsuperscript{123} In practice, and at a minimum, the ministry “will require any licensee that has a parent company to provide an unlimited parent company guarantee” conforming to a model form.\textsuperscript{124} In addition, a market for voluntary decommissioning insurance products has arisen following Norway’s introduction of trailing liability (see 3.1.2: “Trailing Liability”). Under Norwegian law, if an offshore petroleum license or interest has been transferred to a new holder, “the assignor shall be alternately liable for financial obligations” in proportion to their previously owned share if the costs “are not covered by the licensee or another responsible party.”\textsuperscript{125} Because assignors remain indefinitely liable for the decommissioning obligations of their assignees, parties selling their interest in an offshore facility often negotiate some form of security agreement, guarantee, or bonding arrangement in their asset transfer agreements to limit their own open-ended liability.\textsuperscript{126}

In addition to providing cash to backstop against the underlying company’s insolvency, third-party guarantees add a layer of private governance that “prevent[s] insolvency from


\textsuperscript{122} Id.

\textsuperscript{123} Act 29 November 1996 No. 72 Relating to Petroleum Activities § 10-7 (Nor.).


\textsuperscript{125} Act 29 November 1996 No. 72 Relating to Petroleum Activities § 5-3 (Nor.).

\textsuperscript{126} Catherine Banet, Norway, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 541, 554 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).
undermining the deterrent effect of liability rules.” 127 If a company is winding down, nearing insolvency, or otherwise facing post-decommissioning liability in excess of its expected future assets, it may have little incentive to conduct decommissioning in the safest and most effective manner. 128 A third-party insurer or guarantor, however, will be motivated to ensure that the underlying company adequately manages its risks. 129 However, the ability of these third-party guarantors to reduce risk ex ante may “depend critically on the efforts of insurers—or other financial guarantors—to ‘regulate’ risky activities.” 130

4.2.3 Designated Funds

As discussed in Section 4.1.2 above, jurisdictions may also require offshore operators to provide security by establishing and funding a dedicated decommissioning account. 131 Indonesia’s “designated fund” regulations provide a good example of the various payment and security mechanisms a jurisdiction may implement to protect designated funds. Designated decommissioning funds have been a longstanding feature of Indonesian decommissioning law, and are currently enshrined in a comprehensive set of regulations and related guidelines. 132 From the beginning of an offshore asset’s productive life, its operator must deposit decommissioning funds into a designated account over a set period of time based on an estimate of anticipated abandonment and site restoration (“ASR”) costs. 133 These funds are subject to significant and specific controls. “ASR Funds must be deposited in a joint account held by the relevant regulator, SKK Migas, and the

128 “[A]n undercapitalized firm engaged in a risky activity can be expected to cut corners on safety expenditures with the expectation that any damages exceeding the firm’s net worth will be borne by third parties.” Id.
129 Id. at 407.
130 Id. at 406.
contractor in an Indonesian state-owned bank.” 134 Prior to 2018, SKK Migas guidelines only allowed the contractor to withdraw these funds at the end of decommissioning, “following approval of [decommissioning] completion.” 135 In 2018 SKK Migas released revised working guidelines that allow the contractor to withdraw funds progressively throughout the course of decommissioning, subject to a budget approved by SKK Migas and on approval from Indonesia’s Directorate General for Oil and Gas. 136

Jurisdictions may also provide special legal mechanisms to ensure that decommissioning funds cannot be used for non-decommissioning purposes. For example, while the United Kingdom does not universally require private oil companies to establish designated decommissioning funds, if a contract or regulatory action creates such a fund, the United Kingdom’s Petroleum Act protects decommissioning funds from insolvency regimes, “or any other enactment or rule of law,” that would “prevent or restrict” those assets from being applied for decommissioning expenses. 137

4.3 Tax Treatment of Decommissioning

Tax regimes interact with offshore oil and gas decommissioning liability in a number of ways. These interactions are driven by two features of offshore decommissioning: decommissioning is very expensive, and, by definition, it generally occurs at the end of the asset’s usable life “when production, and profit generation, has ceased.” 138 “The combination of very costly obligations for operators at a time when operating income is trickling to a stop may present some unfortunate incentives.” 139 This section addresses tax mechanisms that impact the costs and allocation of


135 Anton Latief, Indonesia, in The Regulation of Decommissioning, Abandonment and Reuse Initiatives in the Oil and Gas Industry: From Obligation to Opportunities 407, 427 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

136 Id.

137 Petroleum Act 1988, Ch. 17, § 38A(6) (Eng.).


139 Rune Tjomsås Andersen & Ole Kirkvaag, The Tax Treatment of Decommissioning: The Example of Norway, in The Regulation of Decommissioning, Abandonment and Reuse Initiatives in the Oil and Gas Industry: From Obligation...
decommissioning liability. These mechanisms include tax rules around the deductibility of decommissioning costs, dedicated industry taxes to defray government decommissioning expenses, and other, more unusual structures, like Brazil’s deferred tariff regime, that may create significant tax obligations during decommissioning.

4.3.1 Deduction of Decommissioning Costs

Every jurisdiction that allows companies to deduct operating expenses from their taxable income must decide how decommissioning costs should be treated. As a general matter, regimes that apply an income tax to offshore oil and gas operations frequently allow private companies to treat decommissioning costs as tax deductible.\textsuperscript{140} Where deductions are permitted for decommissioning costs, jurisdictions apply one of three models: (1) an “expenditure” model, which deducts decommissioning costs when the decommissioning expenditures actually occur (primarily at the end of the facility’s life); (2) an “accrual” model, which deducts decommissioning costs when the decommissioning liability accrues to the liable party, and (3) a “contribution” model, which allows liable parties to take a deduction when they pre-fund a designated decommissioning account.\textsuperscript{141} Expenditure models and contribution models are also referred to in the literature as a “cash basis” model, or a “pre-funded basis” model, respectively.\textsuperscript{142}

The expenditure model is relatively common, particularly in systems that tax oil and gas profits on a cash-flow basis.\textsuperscript{143} However, while conceptually simple, this practice means that deductions may be unusable for companies that are no longer generating profits in the taxing


\textsuperscript{142} Robert Hodges, International Taxation, in OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE 99, 100 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

\textsuperscript{143} Id.
jurisdiction. Some jurisdictions “mitigate this through allowing the decommissioning loss to be set off against profits elsewhere in the group or against the profits of a certain number of years before cessation.”144 This structure may also encourage companies to initiate decommissioning early, where possible, so that they can use their decommissioning “losses” to offset the tax on generated profits.145 The accrual and contribution models create more usable deductions for the liable companies, but require detailed rules addressing the amount and timing of decommissioning obligations.146

Along with defraying the burden of decommissioning, tax regimes may be used to directly fund government decommissioning expenses. When offshore oil companies collapse with unfunded decommissioning obligations, for example, governments may impose emergency taxes on the rest of the industry to cover the liabilities. Australia deployed this strategy in 2020 to deal with decommissioning liability from the collapse of an offshore petroleum company (see Box 4: Australia’s Special Decommissioning Levy).

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145 Id. at 307.

146 Id. at 309–10.
AUSTRALIA’S SPECIAL DECOMMISSIONING LEVY

In 2015 two Australian energy companies, Woodside Energy Ltd. (“Woodside”) and Talisman Oil & Gas Pty. Ltd. (“Talisman”), were joint operators of a floating offshore petroleum installation, the Northern Endeavour, which was nearing the end of its life.1 In September 2015 a newly formed company, Northern Oil and Gas Australia (“NOGA”) acquired Talisman, which in turn acquired Woodside’s rights in the venture, and Northern Endeavor.2 NOGA, which had a sole director, intended to extend the life of the Northern Endeavor. However, following a series of dangerous accidents on the Northern Endeavor, the relevant Australian regulator suspended NOGA’s production licenses. After this suspension was extended, NOGA and its related companies went into voluntary bankruptcy administration.3

Following the collapse of NOGA, the Australian government passed an emergency levy on offshore oil and gas production to fund NOGA’s decommissioning obligations, in the face of significant industry protest.4

2 Id.
3 Id.

Box 4: Australia’s Special Decommissioning Levy

4.3.2 End-of-Life Tax Liabilities

Decommissioning may also raise tax issues and liabilities unrelated to the decommissioning expenses themselves. For example, Brazil has a specific and long-standing customs tax regime, REPETRO, which suspends tariffs on goods “directly destined for and used in the exploration and production of oil and gas.” 147 If an offshore facility uses materials that benefited from this suspension, the suspended taxes must be paid upon decommissioning unless the materials are (1) reused in another exempted manner, (2) re-exported, or (3) destroyed.148 Delayed-liability regimes

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147 Gabriela Roque, Fernanda Delgado de Jesus, Pedro Henrique Gonçalves Neves, & Eduardo G. Pereira, Brazil, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 277, 289 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).
148 Id.
like REPETRO might create balloon payment obligations that arise during the process of decommissioning, when operators are likely to lack revenue streams or valuable assets.

4.3.3 Tax Stabilization in Contracts

As discussed in Section Error! Reference source not found. above, stabilization clauses, which limit the application of new or modified laws to contracts that have already been executed, may freeze the tax regime applicable to the project and prevent any changes to applicable petroleum taxes, royalties, rents, or tariffs. Contracts analyzed for this report from Angola149 and Indonesia150 contained stabilization clauses that might limit changes to applicable tax regimes.

5. GAPS, RISKS, AND AREAS FOR EXPLORATION

The legal structures, regulatory regimes, and contractual mechanisms reviewed for this report contain a number of features that may create uncertainty or risk for host jurisdictions in a rapid phase-out scenario—that is, in a scenario in which offshore hydrocarbon assets suffer either (1) “economic stranding” from a change in the price of oil or gas or increase in the cost of extraction or (2) “regulatory stranding” from legal restrictions on offshore oil and gas activity.151 This section highlights several gaps, risks, and inconsistencies in the regulatory and contractual regimes reviewed for this report. These risks are categorized into five areas: (1) responsibility for decommissioning, (2) decommissioning funding structures, (3) guarantee, bonding, and security arrangements, (4) tax treatment of decommissioning, and (5) stabilization clauses. These risks are discussed at a general level, and the risks posed by any individual facility may vary widely based on the terms of any relevant contracts and the value and quality of decommissioning assurances, collateral, and other security mechanisms. Instead, this section highlights structural weaknesses in decommissioning laws that may present serious risks to host jurisdictions in a rapid phase-out scenario.

149 See infra Section 7.4.6: “Angola: Stabilization Clauses.”
150 See infra Section 10.4.6: “Indonesia: Stabilization Clauses.”
5.1 Responsibility for Decommissioning

In a rapid phase-out scenario, some jurisdictions may face a simple, but underexplored risk: they may have no decommissioning plans in place. Jurisdictions vary in their approaches to planning and budgeting for decommissioning. In Brazil, for example, private companies must provide a decommissioning plan as part of their overall field development plan. In contrast, Norway only requires license holders to draft a decommissioning plan between 2 and 5 years before their license expires. This inconsistency may create a significant amount of uncertainty in a rapid phase-out scenario where jurisdictions are forced to accelerate their decommission planning timelines, and jurisdictions that adopt Norway’s approach may struggle to develop effective decommissioning plans.

5.2 Decommissioning Funding Structures

As previously discussed, jurisdictions tend to finance decommissioning using either a pay-as-you-go model or a designated fund model. While designated fund models are safer in theory than pay-as-you-go structures because they reserve and protect specific assets for decommissioning expenses, they are far from risk-free. One issue repeatedly highlighted in the literature surrounding offshore decommissioning is that decommissioning costs may change significantly in the decades between a project’s initial construction and its decommissioning. Jurisdictions that attempt to estimate decommissioning expenses at the beginning of a project’s productive life may make inaccurate evaluations. Many jurisdictions attempt to avoid this problem through periodic review of decommissioning resources and decommissioning plans. A 2010 contract entered into by Brazil, for example, requires the parties to regularly reevaluate the adequacy of decommissioning funds throughout the relevant field’s production phase. Jurisdictions may also require independent evaluations of decommissioning costs, rather than rely on private company-produced estimates.

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153 Catherine Bannet, Norway, in The Regulation of Decommissioning, Abandonment and Reuse Initiatives in the Oil and Gas Industry: From Obligation to Opportunities 541, 550 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

the United States decommissioning cost estimates are produced by an independent regulator, the Bureau of Safety and Environmental Enforcement, which provides these estimates to the leasing agency, the Bureau of Ocean Energy Management, as a tool to set decommissioning security requirements.155

Designated fund models also face a unique risk from early asset decommissioning. Many jurisdictions with designated fund structures, including Indonesia, Malaysia, and Mexico, allow companies to make contributions to their decommissioning funds over a period of time.156 Mexico, for example, requires contractors to make quarterly contributions to an abandonment or decommissioning trust based on a calculation considering “the estimated production for the applicable years; the remaining proven reserves; and the remaining amount of decommissioning and abandonment costs at the beginning of each year of calculation.”157 This gradual funding mechanism, however, might mean that insufficient funds would be available to decommission a field before the end of its operating life.

5.3 Guarantee, Bonding, and Security Arrangements

5.3.1 Self-Insurance and Collateral Risk

Many jurisdictions analyzed for this report allow oil companies that meet certain financial strength metrics to self-insure their decommissioning obligations. Some jurisdictions, like the United States, use metrics that include equity value and projections of future oil or gas production,158 which could be highly misleading in the event of an industry-wide downturn. This poses an obvious fiscal


risk in a rapid phase-out scenario. End-of-life fiscal assurance structures that are “conditional upon the financial strength of the operator or some third party” are inherently vulnerable to the financial position of the underlying companies, “[u]nless specific and sufficient assets or funds are ring-fenced from the reach of their creditors.”

However, governments may struggle to change self-insurance or collateral requirements in response to an ongoing economic downturn. During “the oil price collapse of 2014–2016,” for instance, the U.S. Bureau of Ocean Energy Management recognized the inadequacy of the security that companies had provided, but “did not fully enforce” existing financial assurance requirements because the Bureau “was concerned that fully enforcing [the standard] would have led to an increase of bond demands that, in turn, would have contributed to an increase in bankruptcy filings.” Jurisdictions that permit self-insurance may face similar difficulties in a rapid phase-out scenario.


Self-Bonding in the U.S. Coal Industry

In the United States, the Surface Mining Control and Reclamation Act of 1977 ("SMCRA") was intended to ensure that financial resources were available to reclaim mines at the end of their commercial lives. SMCRA required mine operators to post financial assurance based on the expected future cost of reclaiming their mined land, and authorized the coal mine regulator of each State to “set its own criteria for acceptable forms of surety.” However, in the wake of a series of bankruptcies between 2015 and 2016 that claimed companies that “accounted for nearly half of [the United States’] coal production,” U.S. regulators realized that self-bonding of decommissioning liability posed significant and correlated default risks to host governments. Subsequent investigations have suggested that the security posted by U.S. coal mines is woefully inadequate to cover the actual anticipated costs of reclaiming abandoned mines.

Box 5: Self-Bonding in the U.S. Coal Industry

Some jurisdictions allow private companies to secure their decommissioning obligations by posting collateral. The value of some types of collateral, like the surety bonds and government securities favored under United States regulations, may be relatively isolated from the oil and gas industry. Other types of collateral, however, may be closely linked to the market value and legal status of oil and gas. For example, Brazil allows companies that hold exploration and production rights in multiple oil and gas fields to secure their decommissioning obligations in one field by pledging their rights over the offshore field offers oil or gas production from another field . . . as a

1 Denise A. Dragoo & James P. Allen, Coal Mine Closure, Reclamation and Financial Assurance, Rocky Mountain Mineral Law Foundation Paper No. 7 (Nov. 5-6, 2009).
2 Id.
4 Id.

161 30 C.F.R. § 556.902(e).
guarantee of decommissioning costs.” The value of this collateral is obviously closely linked to the value of the underlying oil and gas, and this type of collateral may devalue overnight in a rapid phase-out scenario.

5.3.2 Correlated Guarantee Risk

Many jurisdictions analyzed for this report allow companies to secure their decommissioning obligations through third-party financial assurance mechanisms, like decommissioning bonds, insurance products, letters of credit, or parent-company guarantees. These instruments are often subject to detailed credit rating requirements and other risk evaluation processes. However, these instruments may create significant and unanticipated risk in a rapid phase-out scenario if the third parties underwriting them face correlated exposure to the guaranteed activities. This could happen either because the economic health of a third-party guarantor like a parent company is directly tied to the economic health of the industry, or because an insurers or other underwriter concentrates risks that would otherwise be spread across an entire sector.

In the United States, for example, the Surface Mining Control and Reclamation Act (“SMCRA”) requires coal mine operators to post bonds for decommissioning and reclamation costs. However, a 2022 investigation by Bloomberg and NPR revealed that Indemnity National Insurance Co., a small and poorly diversified specialty insurer, underwrites the decommissioning obligations of “almost one-fifth of the US coal mining industry.” Regulators and industry researchers worry that that “[m]ultiple mine bankruptcies at the same time could overwhelm Indemnity,” pushing unfunded reclamation costs onto the public.


163 See supra Section 4.2.2: “Third-Party Guarantees” (discussing Brazil’s standards for third-party financial instruments provided as decommissioning security).


166 Id.
5.4 Tax Treatment of Decommissioning

Given the large direct expenses involved in decommissioning offshore oil and gas facilities, tax liability may be something of an afterthought for policymakers contemplating the large-scale decommissioning of an offshore oil and gas field. However, the tax treatment of decommissioning costs in a rapid phase-out scenario may create unexpected liabilities, shortfalls, and default risks throughout the decommissioning process. The most obvious default risk comes if a jurisdiction’s laws create end-of-life tax liability for a company engaged in offshore oil and gas decommissioning. For example, Brazil’s REPETRO regime may require companies engaged in decommissioning to pay deferred tariffs if decommissioned materials are recycled in Brazil for uses that are not tax-exempt.167 (See Section 4.3.2: “End-of-Life Tax Liabilities”). These balloon payments at the end of an asset’s life might face a high non-payment risk if the liable parties lack assets to cover these liabilities.

Tax deduction models may also create decommissioning risk in a rapid phase-out scenario. First, changing the timing of tax deductions may change companies’ ability to afford decommissioning. Put simply, a decommissioning process will cost an operator more if it cannot use its tax deductions efficiently.168 However, a premature decommissioning process driven by a rapid collapse of offshore oil and gas might have a silver lining for “expenditure model” jurisdictions, if it forces companies to decommission in a year when they have production profits against which they can offset their costs.169

Governments may also face unexpected liability if their tax regime allows decommissioning operators to receive not just deductions but tax refunds as a result of their decommissioning costs. Two common mechanisms, decommissioning tax credits and “carry back” provisions, could force governments to disgorge refunds in the event of the rapid decommissioning of multiple offshore installations. The scale of these tax refunds can be considerable. For example, in 2020 Shell received

167 See supra Section 4.3.2: “End-of-Life Tax Liabilities.”


169 Indeed, one risk highlighted in the literature around expenditure models is that they tend to encourage premature decommissioning for exactly this reason. Id. at 307.
a GBP 67.5 million tax refund from the United Kingdom by using its 2020 decommissioning expenses “to offset historical tax” through a carry-back mechanism.\(^\text{170}\)

### 5.5 Stabilization Clauses

A large body of literature addresses the effects of stabilization clauses in international oil and gas contracts,\(^\text{171}\) and extensive discussion of stabilization agreements lies outside of the scope of this paper. However, it is worth noting that stabilization clauses may create a barrier to the early decommissioning of oil and gas infrastructure. For example, several Angolan offshore oil and gas contracts analyzed for this report contain stabilization clauses that require Angola to restore the “rights, obligations, and forecasted benefits” of those contracts if “any change in the provisions of any law, decree, or regulation in force in [Angola] ... adversely affects the obligations, rights, and benefits” of the parties.\(^\text{172}\) These stabilization clauses may create risks for governments where early decommissioning is driven by the law or public policy of the host jurisdiction.\(^\text{173}\) In fact, the OECD Guiding Principles for Durable Extractive Contracts advise against the use of non-fiscal stabilization clauses and recommend that, when governments decide that fiscal stabilization clauses are necessary, these clauses should be “designed to minimise the general tax policy impact, by limiting its scope to specific key fiscal terms (not all fiscal terms), such as agreed rates, for a specific period


of time (not indefinitely), and possibly by applying a stability premium on tax rates.” In evaluating their decommissioning policies, governments should be aware that stabilization clauses in investor-state oil and gas contracts may shift or create additional burdens around early offshore decommissioning.

6. CONCLUSION AND RECOMMENDATIONS

The growing urgency of climate action in line with the Paris Agreement, coupled with the increasing adoption of renewable energy and energy-efficient technologies, is likely to strand thousands of offshore oil and gas installations across the globe. Governments, as the “decommissioners of last resort” under national and international frameworks, are heavily incentivized to ensure that the enormous costs of decommissioning this infrastructure fall on fossil fuel producers, rather than on the public. Countries with significant offshore oil and gas industries have created sophisticated legal frameworks to assign liability for decommissioning expenses and ensure that oil companies fulfill their offshore decommissioning obligations.

However, even jurisdictions with extensive decommissioning experience and well-tested decommissioning regulations may be unprepared for the industry-wide decline associated with a rapid phase-out of offshore oil and gas production. To protect the public in a rapid phase-out scenario, and to ensure that fossil fuel companies meet their decommissioning obligations, governments, policymakers, and industry participants must take four key steps:

1. **Create and regularly update comprehensive decommissioning plans.** Some jurisdictions prepare decommissioning plans only when an installation or field is approaching the end of its usable life. This approach may create bottlenecks and unnecessary delays in a rapid phase-out scenario, where offshore facilities may need to be quickly decommissioned long before the ends of their previously anticipated lifespans. To prepare for a rapid phase-out,

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175 See supra Section 1: “Introduction.”

176 See supra Section 2.1: “International Law.”

177 See supra Section 5.1: “Gaps, Risks, and Areas for Exploration: Responsibility for Decommissioning.”
governments should require the operators of all offshore oil and gas facilities to create and regularly update comprehensive decommissioning plans.

2. **Reexamine decommissioning security mechanisms.** Legal mechanisms like collateral packages, guarantees, and funding structures are often predicated on assumptions that oil and gas assets will remain valuable and that oil companies will remain solvent. In the face of the transition away from fossil fuels, these assumptions may be incorrect. Policymakers and industry participants should examine all security mechanisms to ensure that they are compatible with a rapid phase-out scenario. Evaluators should pay particular attention to three categories of security mechanism:
   a. Guarantees, insurance, self-insurance, and third-party pledges provided by entities that are heavily exposed to the oil and gas industry may be particularly vulnerable to the systemic devaluation of oil and gas assets.
   b. Collateral packages that depend on the value of concession agreements or unextracted fossil fuel assets may lose value in a field-wide rapid phase-out.
   c. Decommissioning funds that are funded gradually over the course of an asset’s anticipated life may be underfunded if assets are decommissioned early.

3. **Evaluate and plan for the tax consequences of industry-wide decommissioning.** Offshore decommissioning is an expensive obligation that occurs at the end of a facility’s economic life, and may significantly affect the economics of decommissioning a particular facility. Policymakers and industry participants who are planning for decommissioning expenditures should ensure that they are aware of, and prepared for, the tax implications of a rapid phase-out affecting the entire oil and gas industry.

4. **Evaluate and modify stabilization clauses to accommodate a rapid phase-out.** In evaluating their decommissioning policies, governments should be aware that stabilization clauses may shift or create additional burdens around early offshore decommissioning. To the extent possible, governments should consider modifying stabilization clauses in line with

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178 See supra Section 5.3: “Gaps, Risks, and Areas for Exploration: Guarantee, Bonding, and Security Arrangements.”

179 See supra Section 4.3: “Tax Treatment of Decommissioning.”

180 See supra Section 5.5: “Gaps, Risks, and Areas for Exploration: Stabilization Clauses.”
international best practices to allow them to mandate early asset decommissioning if offshore assets become legally impaired or otherwise “stranded” by the climate transition.

These recommendations are general, reflecting both the nuanced risks associated with decommissioning complex infrastructure projects and the multi-jurisdictional nature of this paper. Policymakers, academics, and industry members should use these recommendations as a springboard for developing facility-specific and jurisdiction-specific knowledge, plans, and policies. However, despite these jurisdictional variations, the issues highlighted in this paper should represent a warning: offshore decommissioning laws must adapt in response to the transition away from fossil fuels. As oil and gas regulators prepare for the transition, they must act protect the public from the costs of decommissioning offshore oil and gas infrastructure.
7. APPENDIX 1: ANGOLA

7.1 Sources of Law

7.1.1 International Law

Angola is a party to UNCLOS, a member of the IMO, and a party to both the London Convention and its 1996 protocol.

7.1.2 National Law

The primary laws governing offshore decommissioning in Angola are the Petroleum Activities Law (Law 10/04), which broadly governs oil extraction, and the Law on Taxation of Oil Activities (Law 13/04), which sets tax rules for oil operations. These laws and related oil industry regulations are enforced by the Ministry of Petroleum. These statutory frameworks have been supplemented by a number of regulatory decrees, discussed below.

Until 2019 “[a]ll oil and gas exploration and production activities in Angola [were] controlled by the national oil company, Sociedade Nacional de Combustiveis de Angola E.P. (‘Sonangol’).” In 2019 “Angola transferred concessionaires’ rights from national oil company Sonangol to the National Agency for Petroleum, Gas and Biofuels (‘ANPG’), through Presidential Decree No. 49/19.” This reorganization established ANPG as the regulator and concessionaire of

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upstream concessions, auctions, and production contracts, while “Sonangol began restructuring to focus on its core upstream, midstream and downstream businesses as operator.”

Private oil and gas companies that operate in Angola do so pursuant to a variety of contracts (often Production Sharing Agreements, or “PSAs”) with the concessionaire (now ANPG), and Angola’s oil and gas laws generally refer to these companies as “associates.” While some regulations govern the timing and scope of decommissioning planning, historically decommissioning liability has been primarily assigned through negotiated contracts between the national concessionaire and its associates.

The modern abandonment and decommissioning of both onshore and offshore wells is governed by a 2018 regulation, Presidential Decree 91/18. However, while this regulation affected future concessions and new development areas, pre-existing concession agreements remained governed by their previously negotiated funding arrangements.

### 7.2 Liability for Decommissioning

#### 7.2.1 Responsibility for Decommissioning

“[U]ntil recently the Angolan Petroleum legal framework was mostly silent on decommissioning and abandonment, and not 100% clear on other environmental issues.” Article 75 of the Petroleum Activities Law places the responsibility for decommissioning jointly on the national concessionaire and its associates, but provides little further detail. Under PSAs, rights in offshore oil infrastructure return to the concessionaire at the termination of the agreement, and

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188 Id.


190 For example, Presidential Decree 1/09 requires SONANGOL to estimate decommissioning costs and create an “abandonment” plan alongside new development plans. Id. at 231.

191 Id. at 226–28.


model PSAs that were used by Sonangol have incorporated provisions that allow the concessionaire to either decommission facilities or deliver them, “in good operational condition,” to the concessionaire.195

The Petroleum Activities Law requires decommissioning to be conducted in accordance with a pre-established plan between the concessionaire and the associate, and requires “abandonment and rehabilitation” to be “undertaken in line with . . . normal practice in the oil industry.” 196 Generally, PSAs or similar contracts place the burden of this procedure on the associate,197 However, since the 1980s PSAs have allowed associate operators to recover the value of their planned contributions to decommission costs (see “Decommissioning Funding Structures” below) as “Cost Oil.”198 “Cost Oil” is a term used in PSAs to refer to revenue set aside to defray infrastructure or operating costs before the remaining revenue, the “Profit Oil,” is split between an operator and a concessionaire.199 Designating decommissioning funds as “Cost Oil” means that the burden is effectively shared between the concessionaire and its associates, assuming that enough revenue is produced to cover the expenses.

Presidential Decree 91/18 provides that “if contractor group members are replaced by new members, the new entities shall be responsible for the abandonment and decommissioning of wells and facilities.”200

195 Id. at 228–30.
198 Id. at 234–35.
7.2.2 Post-Decommissioning Liability

At the end of decommissioning, associates surrender their facilities to the concessionaire. Historically, “companies have struggled with” the issue of “how to treat residual liability” following decommissioning, and with the categorization of their decommissioning liabilities when their facilities are taken over by the concessionaire.\(^{201}\)

Model PSAs published from September 2015 and onward directly address this situation, and “clearly state[] that if [the concessionaire] requires the Contractor Group to abandon” an offshore facility, the associates “shall have no further liability or obligation” in connection with that infrastructure “save in the event of gross negligence or willful misconduct in the execution of the abandonment obligations.”\(^{202}\) Presidential Decree 91/18 provides that once decommissioning is complete and a satisfactory post-decommissioning inspection has occurred, the concessionaire must “issue a release of liability and indemnity agreement” for the associates.\(^{203}\)

7.3 Financing Decommissioning

7.3.1 Decommissioning Funding Structures

As a general matter, decommission funding in Angola operates on a “designated fund” model. Historically, Angola’s laws and regulations did not directly address decommissioning obligations or funding, and decommission funding was negotiated between Sonangol and its associates under the terms of their respective PSAs.\(^{204}\) Starting in the 1990s abandonment cost provisions were included in some concession decrees, petroleum concessions issued by the government of Angola to the national concessionaire (then Sonangol) that established the terms, periods, and phases of specific oil projects.\(^{205}\) These provisions required the concession’s operator to

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\(^{201}\) Id.


create an “abandonment cost” estimate “when production rates started to diminish” and reached a specified level.\textsuperscript{206} The associate would then make quarterly payments into an escrow fund held by the concessionaire for abandonment and decommissioning expenditures.\textsuperscript{207} If these funds were insufficient, the concessionaire could require its associates to pay the additional expenses “as normal operating expenditures.” \textsuperscript{208} These mechanics were not universally applied, however, and some concession decrees left decommission funding to be negotiated in the PSAs.\textsuperscript{209}

Presidential Decree 91/2018 established a new funding structure for decommissioning obligations in Angola.\textsuperscript{210} It requires the concessionaire and its associates to create detailed decommissioning plans according to specified technical procedures, to update these plans every three years, and to finalize a decommissioning plan at least 12 months prior to decommissioning.\textsuperscript{211} Presidential Decree 91/2018 also requires associates to “constitute abandonment funds” in the amount of the estimated liability “by depositing the relevant funds in an escrow account” held by the concessionaire.\textsuperscript{212} Funding is due at different times based on the stage of the relevant concession—for new concessions, the estimated decommissioning costs must be paid “at the commencement of construction,” while for “new development areas within existing concessions” funding will be due on negotiated dates that must occur before “50% of reserves have been recovered.”\textsuperscript{213}

The framework set out in Presidential Decree 91/2018 “is mandatory for all companies carrying out petroleum operations in Angola” as of the beginning of 2019, and will be applied to all

\textsuperscript{206} Rui Mayer, Bruno Neves de Sousa, & João Olivera, \textit{Angola, in Oil and Gas Decommissioning: Law, Policy, and Comparative Practice} 225, 235 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

\textsuperscript{207} Id.

\textsuperscript{208} Id.

\textsuperscript{209} Id. at 236.


\textsuperscript{211} Id.


existing contracts. However, while the funding structure affects future concessions and new development areas, the decree did not reopen the decommission finance structures in existing contracts. Under the decree pre-existing concessions with existing decommissioning funding structures are unchanged, and the existing contract provisions apply.

7.3.2 Guarantee, Bonding, and Security Arrangements

Angola’s decommissioning escrow accounts are the primary security arrangement for decommissioning obligations (see Section 7.3.1: “Decommissioning Funding Structures” above).

7.3.3 Tax Treatment of Decommissioning

Under the Law on Taxation of Oil Activities, contributions to decommissioning escrow accounts are treated as production expenses “for the purposes of assessing taxable income.”

7.4 Decommissioning Provisions in Angolan Contracts

7.4.1 Existence and Scope of Decommissioning Provisions

Although several analyzed Angolan contracts contain dedicated decommissioning clauses, these clauses define decommissioning and abandonment obligations by reference to abandonment requirements set out in national legislation.

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217 As previously noted in the introduction to this paper, the contracts analyzed in this section may have been concluded before the enactment of the latest regulations analyzed in this paper. These contracts may also be subject to stabilization clauses, legislative “grandfathering” provisions, or other jurisdiction-specific legal principles that limit the relevance of generally applicable laws and regulations. Finally, contracts are taken at face value, and we make no assessments as to whether any particular contractual clause is legal or enforceable in any relevant jurisdiction.


7.4.2 Triggers of Decommissioning Liability

Under analyzed Angolan contracts, the decision to proceed with decommissioning is in the hands of Angola’s state-owned concessionaire, even though Angola’s contracts assign liability for the work of decommissioning to the private oil company. As a general principle, contracts executed by Angola’s concessionaire require the private oil company to return fields and facilities to the concessionaire when the production phase is completed. However, Angolan contracts contain an elective trigger, that obliges the private oil company to abandon wells and decommission facilities proceeding upon requirement, instruction, or authorization of the concessionaire.

7.4.3 Development and Scope of Decommissioning Plan

Analyzed contracts from Angola require oil companies to develop and submit a detailed decommissioning plan at least 180 days before the termination of the contract or the date of abandonment and decommissioning in any part of the contract area, without specifically outlining minimum requirements for such a plan.

7.4.4 Government Approval and Oversight

Angolan contracts may explicitly require government approval for decommissioning, abandonment, or transfers. For example, a 2010 Angolan contract analyzed for this report requires

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the private oil company to hand over all of the infrastructure, equipment and all wells within the relevant area “in accordance with a plan approved by [the state-owned oil company].”

7.4.5 Funding and Liability

A 2012 Angolan contract analyzed for this review provides that decommissioning costs are borne by the contracting private oil company, rather than by the concessionaire or the government. The 2012 contract further requires the private company to establish a decommissioning or abandonment fund, and sets out rules governing contributions to that fund. If decommissioning funds are insufficient, Angolan contracts require the private company and the concessionaire to “agree on the method of covering the additional costs,” without excusing the private company from its obligation to perform the work of decommissioning.

Contracts signed by Angola in 2006 and 2012 provide that “[a]fter having carried out the abandonment of the Wells and related assets … or after the [oil company] carries out the handing over of the equipment and Wells to [the state-owned concessionaire] …, the [oil company] will have no further liability in relation to the same,” but provide for exceptions (subsisting obligations) “in cases of gross negligence, willful misconduct or Serious Fault.” In addition, the state-owned concessionaire also assumes an obligation to “indemnify and defend the [oil company] in case of any claims related to such Wells and assets.”

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224 See id. at Annex 3(e).


7.4.6 Stabilization Clauses

Angolan contracts from 2006, 2010, and 2012 contain stabilization clauses. These contracts each provide that, if “any change in the provisions of any law, decree, or regulation in force in [Angola]” occurs after the relevant contract was signed “which adversely affects the obligations, rights, and benefits” of the parties, the parties must agree to contractual amendments that “restore such rights, obligations, and forecasted benefits.”

8. APPENDIX 2: AUSTRALIA

8.1 Sources of Law

8.1.1 Major International Conventions

Australia is a party to the Geneva Convention,228 a party to UNCLOS,229 a member of the IMO,230 and a party to both the London Convention and its 1996 protocol.231

8.1.2 National Law

In Australia the titles to oil and gas reserves are generally held by the State or Territory in which they are located. Australia has a federal system of government, and offshore oil installations within 3 nautical miles of the coast are governed by the law of the adjacent State or Territory.232 Beyond 3 nautical miles, title is held by the Commonwealth of Australia, and offshore installations are governed by the Commonwealth’s Offshore Petroleum and Greenhouse Gas Storage Act 2006 (the “OPGGS Act”).233 This act was subject to significant amendments in 2021 that dramatically changed the nature of Australian decommissioning liability in Commonwealth waters.234

Private companies engaged in offshore oil and gas exploration in Australia receive temporary “offshore petroleum titles” from the Offshore Petroleum Joint Authorities, a high-level inter-governmental body comprised of designated ministers from the Commonwealth, States, and

228 Convention on the Continental Shelf, UNITED NATIONS TREATY COLLECTION (n.d.),


230 Member States, INTERNATIONAL MARITIME ORGANIZATION (n.d.),

231 See STATUS OF CONVENTIONS: RATIFICATIONS BY STATE, INTERNATIONAL MARITIME ORGANIZATION (Mar. 22, 2023),

232 Aylin Cunsolo, Oil and Gas Regulation in Australia: Overview, THOMSON REUTERS PRACTICAL LAW (Dec. 1, 2020),

233 Id.

These titles are administered by the National Offshore Petroleum Titles Administrator ("NOPTA"), which supports the Joint Authorities.\(^{236}\)

The primary regulator at the Commonwealth level is the National Offshore Petroleum Safety and Environmental Management Authority ("NOPSEMA"), which regulates “health and safety, structural (well) integrity and environmental management for all offshore energy operations.”\(^{237}\) Australian States and Territories have the authority to confer regulatory authority over their near-coastal waters to NOPSEMA, although to date only Victoria has done so.\(^{238}\)

### 8.2 Liability for Decommissioning

#### 8.2.1 Responsibility for Decommissioning

As a baseline, the OPGGS Act requires titleholders to remove all property, equipment, and structures that are “neither used nor to be used in connection with” authorized oil and gas operations.\(^{239}\) While decommissioning-in-place or partial removal “may be considered, . . . the titleholder must demonstrate that the alternative decommissioning approach delivers equal or better environmental outcomes compared to complete removal.”\(^{240}\) Titleholders can be subject to civil and criminal liability for breaching this obligation.\(^{241}\) “Where there is more than one titleholder, the OPGGSA imposes joint and several liability for decommissioning on the current registered titleholders.”\(^{242}\)

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239 Offshore Petroleum and Greenhouse Gas Storage Act 2006 § 572(3) (Austl.).


Following the 2021 amendments to the OPGGS Act, the responsible Commonwealth Minister and NOPSEMA were granted “the power to issue remedial directions.” These allow NOPSEMA to compel a person to conduct remedial work to meet their obligations under the OPGGS Act, including decommissioning obligations. These directions can be targeted towards “persons who are, or have been, involved in or benefited from a petroleum activity” and can, “as a measure of last resort where all other regulatory options have been exhausted,” be directed at former titleholders or related persons. This extension of liability to former owners is referred to as “trailing liability.” In extraordinary circumstances the Australian government has taken steps to ensure that decommissioning liability does not fall on taxpayers by levying industry-wide taxes to address decommissioning shortfalls (see Section 8.3.3 “Tax Treatment of Decommissioning” below).

A detailed overview of State and Territory decommissioning regimes is outside of the scope of this paper, but it is important to note that these regimes have not fully adopted the new trailing liability standards of the OPGGS Act. Prior to the 2021 federal amendments to the OPGGS Act, “the regulatory schemes for offshore decommissioning in Victoria and [Western Australia],” the two states with the most offshore petroleum activities, were “very similar to that of the OPGGSA.” Following the 2021 OPGGSA amendments, Western Australia’s Department of Mines, Industry Regulation and Safety, the relevant regulator, released a draft discussion paper which suggested that Western Australia did not intending to immediately mirror OPGGSA’s trailing liability.

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244 Id. at § 6.4.

245 Id. at §§ 6.4–5.

246 Id. at § 6.5.

scheme. In contrast, the government of Victoria seems more open to trailing liability, and “has already announced an intention to introduce trailing liability for decommissioning coal mines.”

8.2.2 Post-Decommissioning Liability

“Once decommissioning obligations have been carried out to NOPSEMA’s satisfaction, and the title surrendered, the residual liability for any infrastructure that has not been removed rests with the government.” Prior to the 2021 OPGGSA amendments, NOPSEMA did not have the authority to direct former titleholders who had surrendered their title to pay for additional decommissioning costs or liabilities. The theory underlying this policy was that “a titleholder cannot surrender a title until NOPSEMA is assured that . . . the area has been adequately remediated.”

Following the 2021 amendments, “trailing liability” standards apply to post-surrender decommissioning expenses, and NOPSEMA can issue a remedial decommissioning direction. Post-surrender remedial directions can be directed at any former registered holder who held the relevant title after January 1, 2021, or any “related body corporate” of the former title holder.

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250 Alexandra Wawryk, Australia, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 251, 263 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

251 Id. at 275.

252 Id.


254 Id. at § 6.11.
8.3 Financing Decommissioning

8.3.1 Decommissioning Funding Structures

Decommissioning in Australia is funded on a “pay-as-you-go” system. The OPGGS Act does not establish decommissioning financing structures, “nor is there an industry or statutory fund to cover decommissioning.”\(^\text{255}\)

8.3.2 Guarantee, Bonding, and Security Arrangements

Decommissioning obligations in Australia are generally subject to a loose self-insurance requirement, although this insurance can be supplemented by bonds, dedicated funds, third-party guarantees or other mechanisms.\(^\text{256}\)

Section 571(2) of the OPGGS Act requires offshore titleholders to “maintain financial assurance sufficient to give the titleholder the capacity to meet costs, expenses and liabilities arising in connection with” its licensed activities.\(^\text{257}\) This assurance must generally be held “in a form acceptable to NOPSEMA.”\(^\text{258}\) While this requirement suggests that NOPSEMA can require security for decommissioning obligations, this provision was intended to address accidents and unexpected liabilities; “NOPSEMA does not require titleholders to maintain financial assurance to cover planned or ‘ordinary’ decommissioning costs.”\(^\text{259}\) Even the “enhanced decommissioning framework” put in place in 2021 “does not require security” for decommissioning obligations.\(^\text{260}\)

The 2021 amendments to Australia’s decommissioning framework enhanced the financial assurance process to an extent. In particular, NOPTA must evaluate the technical and financial

\(^{255}\) Alexandra Wawryk, *Australia, in The Regulation of Decommissioning, Abandonment and Reuse Initiatives in the Oil and Gas Industry: From Obligation to Opportunities* 251, 261 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

\(^{256}\) *Offshore Petroleum and Greenhouse Gas Storage Act 2006* s 571(2) (Austl.).

\(^{257}\) Id.

\(^{258}\) Id.

\(^{259}\) Id.

capacity of a titleholder before it undergoes a “change of control” — which occurs “if a person begins, or ceases, to control 20% of the Titleholder.” 261 In addition, a proposed “exposure draft” of offshore petroleum environmental regulations would require NOPSEMA to separately evaluate the financial capacity of a titleholder when they submit an environmental plan for decommissioning. 262

8.3.3 Tax Treatment of Decommissioning

Decommissioning costs related to offshore “petroleum projects” are generally tax deductible, either as a “closing-down expenditure” or a “general project expenditure.” 263 If closing-down expenditures exceed taxable receipts in a given year, the titleholder may receive a tax credit for up to “40% of the excess closing-down expenditure.” 264 It is unclear how Australia’s tax laws interact with liability incurred under Australia’s new trailing liability scheme after the surrender or transfer of a project. There is “risk that the tax outcomes associated with decommissioning for called back former titleholders (or their related parties) will be different to those for current titleholders.” 265

Australia has recently applied emergency industry-wide levies to pay for unfunded offshore decommissioning obligations. In 2020, following the collapse of an underfunded company that held end-of-life offshore petroleum assets, the Australian government passed an emergency levy on offshore oil and gas production to fund more than AUD 1 billion of that company’s unfunded decommissioning obligations. 266


263 Alexandra Wawryk, Australia, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 251, 268 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).


8.4 Decommissioning Provisions in Australian Contracts

8.4.1 Existence and Scope of Decommissioning Provisions

A 2006 Australian contract analyzed for this review contains an extensive independent definition of “decommissioning,” and defines decommissioning obligations as the obligations to “abandon, decommission, transfer, remove, or dispose of structures, facilities, installations, equipment, and other property, and other works, used in Petroleum Operations in the area, to clean up the area and make it good and safe, and to protect the environment.”

8.4.2 Triggers of Decommissioning Liability

Under analyzed Australian contracts from 2006 and 2013, the private oil company is required to decommission its installations once the overarching contract is terminated or those facilities are “no longer required for Petroleum Operations,” whichever occurs first. This obligation is broad, and applies to infrastructure in sections of a contracted area that have been relinquished by the contractor. Sections of a contracted development area are “deemed to be relinquished” if they are not subject to an approved natural gas sale contract and either (1) 25 years passes from the first approval of the development plan or (2) production in that area “ceases permanently or for a continuous period of [12 months],” whichever occurs first.

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267 As previously noted in the introduction to this paper, the contracts analyzed in this section may have been concluded before the enactment of the latest regulations analyzed in this paper. These contracts may also be subject to stabilization clauses, legislative “grandfathering” provisions, or other jurisdiction-specific legal principles that limit the relevance of generally applicable laws and regulations. Finally, contracts are taken at face value, and we make no assessments as to whether any particular contractual clause is legal or enforceable in any relevant jurisdiction.


270 “Relinquishment of all or a part of the contract area is without prejudice to the obligations of the contractor to decommission.” Woodside Petroleum (Timor Sea 1) Pty Ltd., INPEX Timor Sea Ltd., Talisman Resources (JPDA 03-01) Pty Ltd., Production Sharing Agreement, 2006, Article 3.1–4, https://resourcecontracts.org/contract/ocds-591adf-7534708827/view#/pdf.

271 Id. at Article 3.3.
8.4.3 Development and Scope of Decommissioning Plan

Under analyzed contracts from Australia, once the oil company has discovered recoverable petroleum from a new reservoir that is commercially viable to exploit and has requested the government to declare its area developable, the company must submit a development plan within 12 months from the declaration. This development plan must contain a decommissioning plan, “in such detail as the Designated Authority requires, including a calculation of the Decommissioning costs, the annual contribution to the Decommissioning Cost Reserve, and the [oil company]’s proposal for the Decommissioning Security Agreement.”272

8.4.4 Environmental Obligations as Contractual Standards

Analyzed Australian contracts define decommissioning as the obligation to “clean up the area and make it good and safe, and to protect the environment.”273 Contractual decommissioning provisions, therefore, unequivocally encompass the oil company’s broad obligation to environmentally remedy the project area.

8.4.5 Government Approval and Oversight

Decommissioning obligations must be performed “to the satisfaction of the Designated Authority,” the government-controlled entity party to the contract.274

8.4.6 Funding and Liability

Analyzed Australian contracts from 2006 and 2013 provide that the cost of decommissioning is borne by the oil company and not the government, and require the private company to establish a decommissioning or abandonment fund along detailed terms contained in each respective contract:


Although analyzed Australian contracts do not expressly include post-decommissioning obligations, contracts from 2006 and 2013 each establish that the contract's termination for any reason is without prejudice to regulatory requirements, certain surviving contractual terms, or any rights and obligations accrued prior to the termination, “including Decommissioning.” Analyzed Australian contracts treat contributions to the decommissioning costs reserve as “cost recoverable by the contractor” during the “decommissioning reserve period,” a 15-year period beginning from a contract-specific date.


276 Woodside Petroleum (Timor Sea 1) Pty Ltd., INPEX Timor Sea Ltd., Talisman Resources (JPDA 03-01) Pty Ltd., Production Sharing Agreement, 2006, Article 2.6 (a), https://resourcecontracts.org/contract/ocds-591adf-7534708827/view#/pdf.

9. APPENDIX 3: BRAZIL

9.1 Sources of Law

9.1.1 International Law

Brazil is a party to UNCLOS, a member of the IMO, and a party to the London Convention (but not the 1996 protocol).

9.1.2 National Law

Brazil’s constitution reserves ownership of oil and gas (along with other minerals) for the federal government. Until 1995, Brazil’s upstream oil exploration and production was “carried out exclusively by Petróleo Brasileiro S.A.” (“Petrobras”), a publicly traded Brazilian oil company in which the Brazilian federal government maintains a majority interest. However, Brazil’s constitution allows Brazil to contract with private companies “to search for and to exploit oil and gas,” and today Brazil has an extensive private oil sector.

The Petroleum Law (Federal Law No. 9,478/1997) introduced Brazil’s concession regime and established the initial contours of concessionaire decommissioning liability. Two 2010 laws, the

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281 Constituição Federal art. 176 (Braz.); see also Eduardo G. Pereira, Brazil, in OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE 275, 280 (Marc Hammerson & Nicholas Antonas eds., 2nd ed. 2016).


284 Eduardo G. Pereira, Brazil, in OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE 275, 280 (Marc Hammerson & Nicholas Antonas eds., 2nd ed. 2016); see also Constituição Federal art. 177 (Braz.) (permitting private concession agreements).

Transfer of Rights Law (Federal Law No. 12,276/2010) and the Pre-Salt Law (Federal Law No. 12,351/2010), established tailored concession regimes for specific regions. A separate legal mechanism exists to assign exclusive exploration rights to Petrobras.

The primary regulator of offshore oil decommissioning liability is the Brazilian National Petroleum, Natural Gas and Biofuels Agency (“ANP”), which “regulates and supervises all activities related to the oil and gas industry.” “Decommissioning is regulated through a combination of the Petroleum Law . . . ordinances/decrees enacted by ANP and specific provisions within the concession agreement applicable to the relevant field.”

9.2 Liability for Decommissioning

9.2.1 Responsibility for Decommissioning

Under ANP Resolution 17/2015, private companies seeking the right to extract oil in Brazil must include a decommissioning plan as part of their overall field development plan. Once a decommissioning plan is approved by the ANP, the concessionaire is bound by the decommissioning obligations and liabilities set out in the plan. Private contractors or concessionaires are directly liable for decommissioning costs, “and, in the case of a consortium, all consortium members are jointly and severally liable towards the ANP” for these costs.

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286 Id. at 278.


290 Id. at 199.

291 David Meiler, Barbara Bittencourt, Nathália de Oliveira Souza and Brenda Falcão de Araújo, Getting the Deal Through: Oil Regulation Brazil, LEXISNEXIS (Apr. 2021), https://plus.lexis.com/api/permalink/154e8521-33a2-408e-8462-3dabb6ad9ee9/.

292 Id.
If a private party assigns its rights to another private entity during the term of its contract or concession, the assignor must submit an “updated Facility Decommissioning Plan” with the assignment request. Post-transfer the assignor and assignee become jointly and severally liable “for decommissioning obligations and costs.” This joint and several liability likely only attaches to decommissioning obligations that were already incurred at the time of transfer, but it is not entirely clear whether assignors have any liability for decommissioning “infrastructure installed after the transfer.”

However, the Petroleum Law also allows private companies to transfer ownership of offshore infrastructure to ANP, at its request, “without onus of any nature to the federal government or ANP.” This transfer law has never been used, and it is unclear if operators would remain responsible for future decommissioning liability after such a transfer.

9.2.2 Post-Decommissioning Liability

The Petroleum Law requires private oil and gas operators to “[i]ndemnify any and all damages arising from exploration and production activities.” This is a strict liability regime, and under a separate, generally applicable law environmental liability attaches to any party who is “directly or indirectly responsible for an activity that causes environmental damage.” “Direct” responsibility attaches to the party who actually conducts the damaging activity, and Brazilian

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295 Id.

296 Id. at 285.

297 Id. at 285–86.


299 Id.

courts have increasingly treated all economic beneficiaries of a harmful activity as “indirectly responsible” for the related harms.\textsuperscript{301}

9.3 Financing Decommissioning

9.3.1 Decommissioning Funding Structures

Offshore decommissioning obligations in Brazil are generally funded by the concessionaire on a “pay-as-you-go” system. However, recent regulations promulgated by the ANP allow private companies to fund a “provisioning fund” as part of their security package.\textsuperscript{302}

9.3.2 Guarantee, Bonding, and Security Arrangements

ANP recently issued a revised decommissioning security regulation, ANP Resolution No. 854 of 2021. This regulation requires the operators of offshore oil rigs to secure their decommissioning obligations with a combination of one or more financial instruments: (1) letters of credit, (2) insurance, (3) oil and gas pledges, (4) corporate guarantees, or (5) provisioning funds.\textsuperscript{303}

Letters of credit and insurance bonds may be issued by financial institutions that are authorized to operate in (or have affiliates who operate in) Brazil.\textsuperscript{304} These instruments are subject to minimum durations and risk rating grades.\textsuperscript{305} Companies that hold exploration and production rights in multiple oil and gas fields can secure their decommissioning obligations in one field by pledging their rights over the offshore field offers oil or gas production from another field . . . as a guarantee of decommissioning costs.”\textsuperscript{306}

\textsuperscript{301} Id. at 285.


\textsuperscript{305} Id.

Under certain limited circumstances “ANP may also accept self-insurance by the contractor/concessionaire to guarantee the fulfillment of its decommissioning obligations,” limited by the guarantor’s net worth.\(^{307}\) Guarantees can also be issued by “members of the same corporate group as the contractor/concessionaire,” or by “a past holder of the respective field or cluster.”\(^{308}\) Guarantees are also subject to detailed risk rating requirements.\(^{309}\)

The total guarantee requirement for each concession is recalculated annually, based on a “Progressive Contribution Model” that considers the anticipated decommissioning costs, along with the net present value of the field considering the field’s “accumulated production and proven and probable reserves.”\(^ {310}\) This model is intended to create a low decommissioning burden at the beginning of the field’s operations, and increase guarantee requirements towards the end of the field’s economic life.\(^ {311}\)

### 9.3.3 Tax Treatment of Decommissioning

A recent academic analysis of Brazil’s offshore decommissioning laws identified two tax issues that are of particular relevance to decommissioning.\(^ {312}\) First, while companies may deduct decommissioning costs from their Brazilian income tax calculations, they can only take those deductions when the costs are actually paid at the end of the field’s operating life.\(^ {313}\) This renders the deductions valueless “unless the company has other activities to generate profit” in Brazil.\(^ {314}\) Second, Brazil has a specific and long-standing customs tax regime, REPETRO, that suspends tariffs on goods

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\(^{308}\) Id. at 9.

\(^{309}\) Id.


\(^{311}\) Id.

\(^{312}\) Id.

\(^{313}\) Gabriela Roque, Fernanda Delgado de Jesus, Pedro Henrique Gonçalves Neves, & Eduardo G. Pereira, Brazil, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 277, 288–89 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

\(^{314}\) Id. at 289.
“directly destined for and used in the exploration and production of oil and gas.” 315 If an offshore facility uses materials that benefited from this suspension, the suspended taxes must be paid upon decommissioning unless the materials are (1) reused in another exempted manner, (2) re-exported, or (3) destroyed. 316 This could create post-decommissioning tax liability for offshore operators.

9.4 Decommissioning Provisions in Brazilian Contracts 317

9.4.1 Existence and Scope of Decommissioning Provisions

Although Brazil’s 2018 model concession contract contains a dedicated decommissioning clause, decommissioning standards are set only by reference to national legislation and good or generally accepted or prevailing international petroleum industry standards or practices at the time of abandonment. 318 A 2013 Brazilian contract analyzed for this report refers to decommissioning standards in reference to a regulator-approved “Facility Deactivation Program” defined as a “program that specifies the group of well abandonment operations, including its decommissioning and withdrawal from operations, removal and proper final disposal of the fixtures and recovery of the areas where such fixtures used to be.” 319

9.4.2 Triggers of Decommissioning Liability

Brazilian contracts analyzed for this report require the private oil company to either (1) return and deactivate the fields and facilities when the production phase is completed, or

315 Id.
316 Id.
317 As previously noted in the introduction to this paper, the contracts analyzed in this section may have been concluded before the enactment of the latest regulations analyzed in this paper. These contracts may also be subject to stabilization clauses, legislative “grandfathering” provisions, or other jurisdiction-specific legal principles that limit the relevance of generally applicable laws and regulations. Finally, contracts are taken at face value, and we make no assessments as to whether any particular contractual clause is legal or enforceable in any relevant jurisdiction.
(2) undertake decommissioning within either a specified time after the termination of the contract or the earlier date that the private contractor relinquishes some or all the contract area.\footnote{Petroleo Brasileiro S.A. Petrobras, Presal Petroleo S.A.(PPSA), Shell Brasil Petróleo Ltda., Total E&P do Brasil Ltda., CNODC Brasil Petróleo e Gás Ltda., CNOOC Petroleum Brasil Ltda., Production Sharing Agreement, 2013, Article 14.2, https://resourcecontracts.org/contract/ocds-591adf-2617767522/view#/pdf.}

9.4.3 Development and Scope of Decommissioning Plan

Analyzed contracts from Brazil require oil companies to develop a scheduled decommissioning plan or program, outlining a series of studies, activities, works, and an estimate of expenditures that they will undertake for decommissioning purposes.

9.4.4 Industry Best Practices as a Contractual Standard

Brazil’s 2018 model concession contracts refer to abandonment obligations in accordance with good or generally accepted or prevailing international petroleum industry standards or practices at the time of abandonment.\footnote{Agência Nacional Do Petróleo, Gás Natural E Biocombustiveis - ANP, Concession Model Contract, 2018, https://resourcecontracts.org/contract/ocds-591adf-1309539708/view#/pdf.}

9.4.5 Environmental Obligations as Contractual Standards

Brazilian contracts may contain very broad environmental obligations. For example, a 2010 Brazilian contract analyzed for this report requires the contracting oil company “to preserve the environment and protect the balance of the ecosystem in the Agreement Area, in order to avoid the occurrence of damages and losses to the fauna, flora and natural resources, care for the safety of people and animals, and respect the cultural and historical heritage, and to remedy or indemnify the damages incurring from the operations, including the activities of abandonment . . . as well as to practice the acts of environmental recovery determined by the relevant authorities.”\footnote{Federal Government of Brazil, Petróleo Brasileiro S.A. Petrobras, Concession, 2010, Article 25.2, https://resourcecontracts.org/contract/ocds-591adf-9691553720/view#/pdf.}

9.4.6 Funding and Liability

Analyzed Brazilian contracts provide that “[the private oil company] will provide the necessary resources for the deactivation and desertion of the Field in the Development Plan which
will be periodically reviewed during the Production Phase.” 323 These contracts treat decommissioning expenditures as cost recoverable.324

10. APPENDIX 4: INDONESIA

10.1 Sources of Law

10.1.1 Major International Conventions

Indonesia is a party to the Geneva Convention,325 a party to UNCLOS,326 and a member of the IMO.327 Indonesia is also a member of ASCOPE.328

10.1.2 National Law

Indonesia exercises sole ownership of oil and gas resources until they are extracted and transferred into private ownership.329 Indonesia’s legal frameworks have addressed offshore decommissioning since 1961, and the primary law governing Indonesia’s modern oil and gas sector is Law No. 22 of 2001 Concerning Oil and Gas (the “2001 Oil and Gas Law”).330 The oil and gas industry is regulated by the Directorate General for Oil and Gas (“DGOG”) on behalf of the Ministry of Energy and Mineral Resources (“MEMR”).331

Prior to 2001 Indonesia’s state-owned petroleum company Pertamina “acted as both an oil company and the main regulator” of the industry.332 In 2001 Indonesia separated Pertamina’s


regulatory functions from its commercial activities.\footnote{Id.} Today offshore oil and gas production are supervised by the Special Task Force for Upstream Oil and Gas Business Activities ("SKK Migas").\footnote{Id.} Both private sector and public sector companies participate in the oil industry through Production Sharing Contracts ("PSCs") entered into with SKK Migas.\footnote{Id.} Excluding Pertamina, "an entity may only hold an interest in one co-operation contract at any time."\footnote{Richard Nelson, Lachlan Clancy, Zoë Bromage, & Andy Kelana, Energy: Oil and Gas 2022—Indonesia: Law and Practice, CHAMBERS & PARTNERS (Aug. 9, 2022), https://practiceguides.chambers.com/practice-guides/comparison/685/9300/14961-14966-14977-14991-14994-15001.} Although "national legislation provides a general legal framework for these activities," many of the details "are found in the PSCs instead of implementing regulations."\footnote{Anton Latief, Indonesia, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 407, 408 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).}

The 2001 Oil and Gas Law “requires every PSC to contain provisions” governing decommissioning obligations.\footnote{Id. at 411.} The English-language literature around Indonesian oil and gas decommissioning refers to these obligations as "abandonment and site restoration" ("ASR") obligations.\footnote{See, e.g., Fitriana Mahiddin, Syahdan Aziz, & Fadhira Mediana, Oil and Gas Regulations: Indonesia 2023, ICLG (Feb. 22, 2023), https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/indonesia.} A series of supplemental laws and regulations since 2001 have provided additional requirements and guidelines that govern the incorporation of ASR obligations into PSCs. In particular, MEMR Regulation No. 15 of 2018 regarding Post-Operation Upstream Oil and Gas Business Activities ("MEMR Reg. 15/2018") sets requirements for how ASR funds should be contributed and managed.\footnote{Id.}
10.2 Liability for Decommissioning

10.2.1 Responsibility for Decommissioning

Offshore PSC contractors have long been expressly required to “dismantle disused installations in a good workman-like manner” and to notify Indonesia prior to abandoning a site.341 The details surrounding these decommissioning obligations were, for decades, contained primarily in PSCs,342 but have been increasingly mandated by statutes and regulations following the passage of the 2001 Oil and Gas Law.343 “PSCs that do not contain provisions regarding post-operation obligations” are currently governed by MEMR Reg. 15/2018, which requires contractors to submit decommissioning plans for approval from the DGOG.344

A recent regulation, MEMR Regulation No. 23 of 2021 (“MEMR Reg. 23/2021”), addresses responsibility for decommissioning following the expiration and renewal of a PSC. When a PSC expires, Pertamina, Indonesia’s state-owned oil company, may elect to take over operations on that site regardless of “whether the initial Contractor has applied for an extension.”345 If multiple operators seek to continue operations on a site subject to an expired PSC, “the MEMR has the authority to decide whether the operation will be resumed by Pertamina, the initial Contractor, or jointly between the two.”346 This affects decommissioning liability because “MEMR Reg. 23/2021 also stipulates that outstanding post-operation obligations of a PSC nearing expiry are to be carried out by the entity that has been appointed by the MEMR to resume the PSC.”347


342 Id. at 410–11.

343 Id.


345 Id.

346 Id.

347 Id.
10.2.2 Post-Decommissioning Liability

Indonesia “has not explicitly embedded the issue of residual liability in its national legislation,” and there is some ambiguity around post-decommissioning liability structures.\textsuperscript{348} Prior to 2018, the MEMR provided a post-decommissioning “Site Clearance Certificate” that “would stipulate that the PSC Contractor [had] conducted the necessary actions” to rehabilitate “a certain site’s environment.”\textsuperscript{349} Current regulations do not provide for such a stipulation, and it is unclear to what extent contractors retain liability for environmental or decommissioning expenses following the completion of their approved ASR plan.\textsuperscript{350}

10.3 Financing Decommissioning

10.3.1 Decommissioning Funding Structures

Offshore decommissioning obligations in Indonesia are funded through a designated fund structure. This structure has been a longstanding feature of Indonesian decommissioning, and is currently governed by MEMR Reg. 15/2018 and related SKK Migas guidelines.\textsuperscript{351} Starting at the beginning of production, contractors must deposit funds into a designated ASR account over a set period of time based on an estimate of anticipated ASR costs.\textsuperscript{352}

ASR funds are subject to significant and specific controls. “ASR Funds must be deposited in a joint account held by SKK Migas and the contractor in an Indonesian state-owned bank.”\textsuperscript{353} Prior to 2018, SKK Migas guidelines allowed withdrawals from the ASR fund only “following approval


\textsuperscript{349} Id.

\textsuperscript{350} Id. The author notes that this ambiguity is not thoroughly addressed in English-language legal literature published after 2020, and may have been resolved.


of ASR completion.” In 2018 SKK Migas released revised working guidelines that allow the contractor to withdraw ASR funds progressively throughout the course of decommissioning, upon approval from the DGOG and subject to a budget approved by SKK Migas.

PSCs drafted prior to 2017 contained cost recovery mechanisms that allowed contractors to “recover the funds set aside for decommissioning activities” from oil and gas revenues. In PSCs signed since 2017, however, Indonesia has generally “moved to a ‘gross split’ mechanism” that does not allow for cost recovery, and instead places “all responsibility for decommissioning liabilities onto contractors.” This is not universal, however, and MEMR Regulation No. 12 of 2020 allows MEMR to, at its election, award PSCs with a variety of compensation mechanisms.

10.3.2 Guarantee, Bonding, and Security Arrangements

Indonesia’s laws and regulations do not require specific guarantees or bonding for decommissioning obligations. Instead, the primary security mechanism is the ASR fund, which is subject to certain controls (see “Decommissioning Funding Structures” above).

PSCs may contain specific restrictions on assignment and changes of control. Generally, contractor cannot transfer “a majority interest in a PSC to a non-affiliate” during the first three years of an exploration period, and “Pertamina has a right of first refusal in respect of transfers to third parties.”

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354 Anton Latief, *Indonesia, in The Regulation of Decommissioning, Abandonment and Reuse Initiatives in the Oil and Gas Industry: From Obligation to Opportunities* 407, 427 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

355 Id.


357 Id.


360 Anton Latief, *Indonesia, in The Regulation of Decommissioning, Abandonment and Reuse Initiatives in the Oil and Gas Industry: From Obligation to Opportunities* 407, 426 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).
parties, exercised by the MEMR.” In addition, MEMR Regulation No. 48 of 2017 MEMR “requires a contractor to seek approval from SKK Migas in the event of a direct change of control in the contractor.”

10.3.3 Tax Treatment of Decommissioning

“In PSCs using the gross split mechanism, ASR Funds are borne by the contractor and may be deducted by the contractor for the purpose of calculating its income tax liability,” along with other operating costs. Net annual losses from operating cost deductions can be carried forward “for the next ten consecutive years.” Because Indonesia only allows private operators to hold one PSC at a time, “the costs incurred in respect of one [PSC] cannot be used to offset any liability to pay tax under another.”

10.4 Decommissioning Provisions in Indonesian Contracts

10.4.1 Existence and Scope of Decommissioning Provisions

A 1999 Indonesian contract analyzed for this report and Indonesia’s 2013 model contract both include decommissioning provisions. However, these contracts do not specify decommissioning

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362 Id.


365 Id.

366 As previously noted in the introduction to this paper, the contracts analyzed in this section may have been concluded before the enactment of the latest regulations analyzed in this paper. These contracts may also be subject to stabilization clauses, legislative “grandfathering” provisions, or other jurisdiction-specific legal principles that limit the relevance of generally applicable laws and regulations. Finally, contracts are taken at face value, and we make no assessments as to whether any particular contractual clause is legal or enforceable in any relevant jurisdiction.
standards, but simply provide that decommissioning must be conducted “in accordance with the applicable Government regulations.”

10.4.2 Triggers of Decommissioning Liability

Under each of the Indonesian contracts analyzed for this report, decommissioning obligations are triggered once the underlying contract expires or is terminated, or once part of the Contract Area is relinquished or abandoned. If the state-owned oil company or another party appointed by the government of Indonesia takes over any area or field prior to its abandonment, the private oil company is released from its decommissioning obligations for that area and all the accumulated decommissioning funds are transferred to the state-owned oil company.

10.4.3 Development and Scope of Decommissioning Plan

A 1999 Indonesian contract analyzed for this report and Indonesia’s 2013 model contract both require private oil companies to establish “abandonment and site restoration” plans and funding mechanisms alongside the plan of development of each commercial discovery. These contracts do not outline the scope of these decommissioning obligations, but simply reference an “approved plan of development.”

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10.4.4 Environmental Obligations as Contractual Standards

A 1999 Indonesian contract analyzed for this report and Indonesia’s 2013 model contract both require the private contractor to fulfill its decommissioning obligations “in accordance with the applicable Government regulations” for the specific purpose of “prevent[ing] hazards to human life and property of others or environment.”

10.4.5 Funding

A 1999 Indonesian contract analyzed for this report and Indonesia’s 2013 model contract both require each plan of development to contain an “abandonment and site restoration program together with a funding procedure for each program,” but do not specify the terms of that funding procedure. Under both contracts, the private oil company must include an estimate of the anticipated abandonment and site restoration costs in its annual Budget of Operating Costs. All expenditures incurred are be treated as annually recoverable Operating Costs, prorated across the “total estimated number of years in the economic life of each discovery.”

10.4.6 Stabilization Clauses

Indonesia’s 2013 model contract includes anticipated tax liability in its production sharing provisions, and provides that changes in tax rates will “result in a revision of” the compensation mechanisms “to maintain [the private contractor’s] same net income after tax.”

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11. APPENDIX 5: MALAYSIA

11.1 Sources of Law

11.1.1 Major International Conventions

Malaysia is a party to the Geneva Convention, a party to UNCLOS, and a member of the IMO. Malaysia is also a member of ASCOPE.

11.1.2 National Law

Malaysia’s 1974 constitution vests the federal government with ownership of and jurisdiction over all oil and gas resources. These rights were allocated to Malaysia’s national petroleum company, Petronas Nasional Bhd (“PETRONAS”), by the Petroleum Development Act of 1974, which grants PETRONAS ownership of, and exclusive rights to, both onshore and offshore petroleum exploration. The act also authorizes PETRONAS to issue upstream development licenses to private contractors.

Malaysia’s “regulatory framework relating to decommissioning of offshore oil and gas facilities is fragmented,” and decommissioning obligations and standards are affected by a large number of other legal frameworks, including environmental laws, maritime laws, and occupational safety and health laws. “There is no specific legislation or framework relating to the abandonment

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382 Id.

or decommissioning of physical structures used in oil and natural gas development.” As a result, “a party seeking to undertake a decommissioning project is required to navigate the requirements of various regulators” to obtain approvals.

Malaysia’s national petroleum company Petrolion Nasional Bhd (“PETRONAS”) “holds exclusive ownership rights to all natural gas exploration and production projects in Malaysia,” and “all exploration, development and production of oil and gas is regulated by PETRONAS” through various contractual structures. PETRONAS has issued a set of Procedures and Guidelines for Upstream Activities (“PPGUA”), which establish compliance obligations for private contractors under PETRONAS’s Production Sharing Contracts (“PSCs”).

In recent years, there have been a series of disputes between Malaysia’s federal government and its constituent states over ownership of and authority over petrochemical resources. The states of Sarawak and Sabah in particular have argued that agreements underlying their membership in the Malaysian Federation negate the Petroleum Development Act’s allocation of authority to PETRONAS. In 2019 and 2020 Sarawak and Sabah respectively enacted state-level taxes on crude oil and natural gas exports, which were upheld by the Sarawak High Court. Recent disputes between Sarawak and PETRONAS over state-level taxes and the role of Sarawak’s state-owned petroleum company (“PETROS”) were settled in 2020 with an agreement that included a $USD 715

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386 COUNTRY ANALYSIS EXECUTIVE SUMMARY: MALAYSIA 1, U.S. ENERGY INFORMATION ADMINISTRATION (Jan. 25, 2021), https://www.eia.gov/international/content/analysis/countries_long/Malaysia/malaysia.pdf.
million payment from PETRONAS\textsuperscript{391} and “more active involvement by [Sarawak] in the oil and gas industry through the management of onshore oil and gas resources by PETROS and investment by PETROS in the upstream ventures in offshore areas.”\textsuperscript{392} However, jurisdiction over and ownership of petrochemicals remain subject to inter-governmental disputes.\textsuperscript{393}

### 11.2 Liability for Decommissioning

#### 11.2.1 Responsibility for Decommissioning

As decommissioning liability in Malaysia is not governed by a single statutory framework,\textsuperscript{394} responsibility for decommissioning varies based on the terms of the relevant contract. The PPGUA requires parties to Production Share Contracts (“PSCs”) to submit abandonment plans for approval by both PETRONAS and the government of Malaysia.\textsuperscript{395} In addition, “Malaysian PSCs require that operators make provision for an ‘abandonment cess,’ or fund,” which is paid to PETRONAS and subject to annual recalculation.\textsuperscript{396}

These contributions are generally cost-recoverable through mechanisms in the PSC.\textsuperscript{397} Under one less common form of contract, the “Risk Service Contract,” ownership of the offshore infrastructure, and the related decommissioning liability and abandonment costs, are held by

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\textsuperscript{393} See Roger Chin, President of the Sabah Law Society, Opening of the Legal Year 2023 (Jan. 13, 2023) (transcript available at the following link: https://www.sabahlawsoociety.org/userfiles/media/sabahlawsociety.org/sls-speech-for-oly-2023-miri_1.pdf) (discussing legal theories addressing the distribution of ownership of offshore oil resources between Malaysia’s federal government and the State of Sabah).


\textsuperscript{397} Id.
PETRONAS instead of the contractor. Ultimately, “a large number of decommissioning projects are likely to be the legal responsibility of PETRONAS,” rather than private contractors.

11.2.2 Post-Decommissioning Liability

There is substantial regulatory ambiguity about post-decommissioning liability, and several Malaysian scholars have emphasized that “residual liability [for offshore decommissioning] remains uncertain in Malaysia.” Malaysia’s decommissioning regulations have historically neither addressed residual liability or risk management nor required the establishment of a “residual risk fund.” This ambiguity does not preclude the issue being addressed in individual contracts.

11.3 Financing Decommissioning

11.3.1 Decommissioning Funding Structures

Offshore decommissioning obligations in Malaysia are funded through a designated fund structure. The “financial framework” of Malaysia’s decommissioning obligations is not specifically outlined in the PPGUA or other statutes. However, as previously discussed, Malaysian PSCs require operators to make annual contributions to a decommissioning fund that is controlled by PETRONAS.

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398 Natra Saad, Abdussalam Mas’ud, Nor Aziah Abdul Manaf, Zuaini Ishak, Does Risk Sharing Contract Foster the Investment Climate of Malaysian Marginal Oil Fields, 6 INT’L J. ECON., BUS. & MANAGEMENT STUDIES 33, 36 (May 2019).


11.3.2 Guarantee, Bonding, and Security Arrangements

The presence and form of security or guarantee requirements are subject to negotiation with PETRONAS. However, as previously discussed, PSCs generally require contractors to pre-fund an abandonment fund that is controlled by PETRONAS.

11.3.3 Tax Treatment of Decommissioning

In September 2022, as part of a special package of tax incentive “to attract oil and gas companies to invest and venture into [Late-Life Assets],” Malaysia passed legislation allowing contractors in certain late-life PSCs to carry back “losses from decommissioning activities” to their two prior tax years.

11.4 Decommissioning Provisions in Malaysian Contracts

11.4.1 Existence and Scope of Decommissioning Provisions

The dataset reviewed for this report only contained one Malaysian contract, a 1994 Production Sharing Agreement (“PSA”). This PSA does not include decommissioning language or obligations, except that it authorizes abandoning “boreholes and wells which have become or are unproductive” with the consent of the Malaysia-Thailand Joint Authority, an intergovernmental body that manages seabed exploration in the “joint development area” of the Gulf of Thailand. The 1994 PSA does not otherwise address decommissioning obligations.

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407 As previously noted in the introduction to this paper, the contracts analyzed in this section may have been concluded before the enactment of the latest regulations analyzed in this paper. These contracts may also be subject to stabilization clauses, legislative “grandfathering” provisions, or other jurisdiction-specific legal principles that limit the relevance of generally applicable laws and regulations. Finally, contracts are taken at face value, and we make no assessments as to whether any particular contractual clause is legal or enforceable in any relevant jurisdiction.


409 See About Us, MALAYSIA-THAILAND JOINT AUTHORITY (n.d.), https://www.mtja.org/home/about_us (outlining the history of the Malaysia-Thailand Joint Authority).
11.4.2 Existence of Stabilization Clauses

The 1994 Malaysian PSA establishes that if any time or from time to time there are changes in the taxation regimes of Malaysia or Thailand “which impose[] taxes, duties or levies inconsistent with” the anticipated tax burden in the contract, whether those changes “increase or decrease [the oil company’s] liabilities,” the parties must “formulate a mutually acceptable arrangement” to restore the oil company to “the same fiscal status” as originally provided for in the contract.\(^{410}\)

12. APPENDIX 6: MEXICO

12.1 Sources of Law

12.1.1 Major International Conventions

Mexico is a party to the Geneva Convention, a party to UNCLOS, a member of the IMO, and a party to both the London Convention and the 1996 protocol. Mexico is also party to a number of bilateral treaties with the United States regarding the governance of and sovereignty over oil and gas resources in the Gulf of Mexico, where the two countries share a nautical boundary.

12.1.2 National Law

Under Mexico’s constitution, all petroleum in Mexico’s territory is the inalienable property of the state. Until 2013, all oil and gas exploration and production was conducted by Mexico’s state-owned oil company, Petróleos Mexicanos (“PEMEX”). Between 2013 and 2014, Mexico passed a series of constitutional amendments and statutory and regulatory reforms (collectively, the “2013/2014 energy reform”) that set out a process for private sector leasing. These reforms included the 2014 Hydrocarbons Law, which governs exploration and extraction contracts.

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416 Constitución Política de los Estados Unidos Mexicanos, CPEUM, art. 27, Diario Oficial de la Federación (DOF) 06-02-1976, últimas reformas DOF 06-01-1992 (Mex.).


hydrocarbon taxes, and a number of “rights and obligations of oil operators during the entire life cycle of a hydrocarbons production project.”

The National Hydrocarbons Commission (“CNH”) is a regulatory agency “responsible for the organization of tenders, and execution of contracts related to the exploration and extraction of hydrocarbons.” Following the 2013/2014 energy reform, CNH began entering into exploration and production contracts with private companies. For each contract, “[t]he relevant taxes, royalties, and other consideration are determined by a combination of the offer made in the bidding procedure, the rules set out in the Hydrocarbons Revenue Law, and the rules set out in bidding procedures.”

The primary regulator responsible for offshore decommissioning in Mexico is the National Agency for Industrial Safety and Environmental Protection of the Hydrocarbons Sector (“ASEA”), which was created in 2015 following the 2013/2014 energy reform. ASEA was created specifically to regulate and supervise safety and environmental protection issues arising from “activities and facilities related to the hydrocarbons industry,” including “the decommissioning and abandonment of facilities.” On May 21, 2020, ASEA issued the “Guidelines on Industrial Safety, Operational Safety and Environmental Protection for the Closing, Dismantling and Abandonment of Facilities of the Hydrocarbons Sector,” which were “the first compilation of rules that specifically and comprehensively address[ed] the decommissioning of oil and gas facilities in Mexico.”

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421 Juan Carlos Serra & Jorge Eduardo Escobedo, Oil and Gas Regulation in Mexico: Overview, THOMSON REUTERS PRACTICAL LAW (Oct. 1, 2020).


423 Paolo Solano, Rebeca Moreno, Damian Flores, Mexico, in 31 YEARBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 141, 146 (2020).
12.2 Liability for Decommissioning

12.2.1 Responsibility for Decommissioning

The operator of offshore oil infrastructure “is responsible for the totality of the decommissioning and abandonment obligations.” A company that acquires an interest in an exploration and production contract, or acquires a controlling interest in a contracting company or its operations, will be held “jointly and severally liable for the fulfilment of all obligations and liabilities arising from the respective E&P contract (regardless of when they were generated).”

12.2.2 Post-Decommissioning Liability

After decommissioning is completed to ASEA’s satisfaction, ASEA will issue the contractor with an “abandonment letter” that recognizes the contractor’s compliance with ASEA’s decommissioning standards. When an oil operator “has met all decommissioning obligations . . . the CNH [will] formally release[] it from its contractual liabilities.”

However, the decommissioning of a specific site does not completely absolve a contractor of liability. In particular, contractors who are still “operating on a field” post-decommissioning remain “liable for well integrity and impenetrability after final plugging has occurred.” In addition, environmental laws provide that persons who are “responsible for having contaminated a site” remain civilly liable for remediating environmental damage to a site, regardless of the status of their contractual decommissioning obligations. In practice, however, it is unclear how Mexico would

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425 Id.


428 Id. at 489.

enforce these obligations or “compel a former Contract Holder that is no longer in the country” to remediate a site long after the expiration of its contract.\textsuperscript{430}

12.3 Financing Decommissioning

12.3.1 Decommissioning Funding Structures

Offshore decommissioning obligations in Mexico are funded through a designated fund structure. Both the Hydrocarbons Law and the related contracts entered into by the CNH require contractors to establish an abandonment or decommissioning trust held by a “reput[able] Mexican banking institution.”\textsuperscript{431} While the terms of these trusts vary from contract to contract,\textsuperscript{432} ordinarily contractors are required to make quarterly contributions based on a calculation considering “the estimated production for the applicable years; the remaining proven reserves; and the remaining amount of decommissioning and abandonment costs at the beginning of each year of calculation.”\textsuperscript{433}

The decommissioning trust is solely a security arrangement and does not limit the contractor’s liability, “regardless of the existence/constitution of, or existing balance in, the decommissioning trust.”\textsuperscript{434} Any funds left over following decommissioning may be returned to the contractor.\textsuperscript{435}

12.3.2 Guarantee, Bonding, and Security Arrangements

In addition to requiring decommissioning trusts (see Section 12.3.1: “Decommissioning Funding Structures” above), Mexico has a parallel system of security to address environmental remediation requirements. Any offshore oil and gas project must “conduct an environmental impact and


\textsuperscript{431} Id. at 484.

\textsuperscript{432} Id.


\textsuperscript{434} Id.

\textsuperscript{435} Carlos A. Escoto Carranza & Antonio Borja Charles, Mexico, in \textit{THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES} 465, 484 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).
environmental risk assessment . . . to identify the environmental impacts and risks at each phase of
the project,” including the decommissioning and abandonment phase.436 After review of these
assessments ASEA will issue an “environmental impact and risk authorization” that sets out
remediation terms, and that requires security to “be posted each year to cover the cost of undertaking
the required environmental mitigation activities” during the active phase of the project.437 On
February 25, 2021, ASEA issued revised guidelines clarifying the requirements for these
environmental liability guarantees, and noting that they may be satisfied by a variety of financial
instruments include insurance, deposit accounts, trusts, letters of credit, or other security.438

The CNH requires hydrocarbon contractors to seek CNH’s authorization for transactions,
assignments, or changes of control that would alter a contractor’s “corporate and management
control or control of operations.” 439 As part of its approval process, CNH evaluates “the legal,
financial, technical, experience and execution capabilities . . . of a potential assignee, contractor or
joint obligor” to ensure that they can fulfil their obligations under the exploration and extraction
agreement.440

12.3.3 Tax Treatment of Decommissioning

“Taxes and government fees vary, depending on the contractual plan for the
exploration/extraction area.”441 However, oil and gas companies are generally able to deduct as
expenses the entire cost of “investments related to exploration, secondary and enhanced recovery,

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437 Id. at 488–89.


440 Id.

441 Juan Carlos Serra & Jorge Eduardo Escobedo, Oil and Gas Regulation in Mexico: Overview, THOMSON REUTERS PRACTICAL LAW (Oct. 1, 2020).
and non-capitalisable maintenance.” The English-language literature around Mexico’s oil decommissioning regime does not highlight any special tax regime applicable to decommissioning costs.

12.4 Decommissioning Provisions in Mexican Contracts

12.4.1 Existence and Scope of Decommissioning Provisions

Mexican oil and gas exploration contracts may contain extensive definitions of decommissioning obligations. For example, a 2018 contract analyzed for this report defines decommissioning as activities to remove and dismantle materials, including the definitive plugging and technical closure of wells, the disassembly and removal of all plants, platforms, installations, machinery, and equipment used in the activities, and well as the restoration of the environmental damages carried out by the oil company in the contract area, in accordance with the terms of the contract, the best practices of the industry, and applicable regulations.

12.4.2 Triggers of Decommissioning Liability

Exploration and exploitation contracts entered into by Mexico require the contracting private oil company to engage with the relevant regulatory agency before the termination of the contract to coordinate the handover or decommissioning of the facilities. The regulatory agency may choose to take over operational facilities rather than have the private oil company decommission them.

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443 Models of upstream petroleum taxation in Mexico produced by the International Monetary Fund treat decommissioning costs as equivalent to other project costs for the purpose of calculating tax burden. See ALPHA SHAH, NATURAL RESOURCE TAXATION IN MEXICO: SOME CONSIDERATIONS 25, INTERNATIONAL MONETARY FUND (2021).

444 As previously noted in the introduction to this paper, the contracts analyzed in this section may have been concluded before the enactment of the latest regulations analyzed in this paper. These contracts may also be subject to stabilization clauses, legislative “grandfathering” provisions, or other jurisdiction-specific legal principles that limit the relevance of generally applicable laws and regulations. Finally, contracts are taken at face value, and we make no assessments as to whether any particular contractual clause is legal or enforceable in any relevant jurisdiction.


12.4.3 Development and Scope of Decommissioning Plan

Mexican contracts analyzed for this report require contracting private oil companies to develop and submit a scheduled decommissioning plan and budget concurrently with their submission of an overall development plan. These contracts do not include provisions establishing the specific content of the decommissioning plan.

12.4.4 Industry Best Practices as a Contractual Standard

Several 2018 Mexican contracts analyzed for this report described the scope of private companies’ decommissioning obligations by reference to industry best practices.

12.4.5 Government Approval and Oversight

Under the Mexican contracts analyzed for this report, private oil companies must carry out all operations related to the decommissioning of the contractual area according to a development plan approved by the regulatory authorities, and must engage in decommissioning in accordance with applicable regulations.

12.4.6 Funding

Mexican oil and gas contracts from 2018 require oil and gas companies to bear the cost of decommissioning, and to establish and fund a decommissioning fund under contract-specific terms. Mexican contracts analyzed for this report do not grant any special tax status to this fund.


and the existence of a decommissioning fund does not limit the liability of the responsible private company for any decommissioning cost overruns.\textsuperscript{452}
13. APPENDIX 7: NIGERIA

13.1 Sources of Law

13.1.1 Major International Conventions

Nigeria is a party to the Geneva Convention, a party to UNCLOS, a member of the IMO, and a party to both the London Convention and the 1996 protocol.

Nigeria is also party to several regional maritime conventions, although “[t]hese conventions have not yet developed policies and principles for abandonment [or] decommissioning” of offshore infrastructure.

13.1.2 National Law

The 1999 constitution of Nigeria grants sole ownership of oil and natural gas resources to Nigeria’s federal government. Until 2021, the Petroleum Act of 1969 was the primary law governing offshore decommissioning obligations, supplemented and clarified by regulatory actions like the 2018 Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (“EGASPIN”).

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458 Constitution of Nigeria (1999), § 44(3).


The Petroleum Industry Act also established two new regulators, one with jurisdiction over upstream operations and one with jurisdiction over midstream and downstream operations. Under the law, the primary regulators relevant to offshore oil and gas decommissioning are the Minister of Petroleum Resources, who sets government policy for the petroleum industry, and the Nigerian Upstream Regulatory Commission (the “Upstream Commission”), “which is responsible for the technical and commercial regulation of upstream petroleum operations.” Under the PIA, private sector oil and gas companies can receive “rights to develop oil and natural gas reserves . . . through awards of licenses and leases” from the Minister of Petroleum. These awards can include, but are not limited to, production sharing contracts, profit-sharing contracts, risk service contracts, and concession agreements.

As of the date of this report the Upstream Commission undertaking a series of public consultations around revisions to its upstream oil and gas regulations, including proposed “Upstream Decommissioning and Abandonment Regulations.”


463 Id.


465 Id.

13.2 Liability for Decommissioning

13.2.1 Responsibility for Decommissioning

The Petroleum Industry Act assigns all “responsibilities and liabilities relating to decommissioning and abandonment . . . to the licensee or lessee as contractor.”467 Upstream contractors must prepare a decommissioning plan, which is subject to the approval of the Upstream Commission prior to commencement.468 This decommissioning plan must be prepared in accordance with guidelines issued by the Upstream Commission, and must also align with “good international petroleum industry practice” and “the standards prescribed by [the IMO].”469

13.2.2 Post-Decommissioning Liability

Section 232 of the Petroleum Industry Act grants the Upstream Commission the authority to recall a previous holder of the license or lease to undertake its unfulfilled decommissioning obligations under the act, “even where the holder’s interest . . . has been transferred, has expired or been surrendered.”470 However, if a new company has assumed all of the previous holder’s obligations with the approval of the Upstream Commission the previous “licensee or lessee shall have no further responsibilities.”471

13.3 Financing Decommissioning

13.3.1 Decommissioning Funding Structures

Offshore decommissioning obligations in Nigeria are funded through a designated fund structure. The Petroleum Industry Act requires the holders of upstream petroleum leases and


licenses “maintain and manage a decommissioning and abandonment fund.” 472 The initial decommissioning plan must include “a reasonable estimate” of the decommissioning costs that is approved by the Upstream Commission. 473 The lessee or licensee must make yearly contributions to the decommissioning fund based on the approved cost estimate amortized over “the estimated life of the facilities.” 474 “The estimated yearly contribution . . . shall be reviewed every 10 years following the first submission.” 475

Decommissioning funds must be held with “a financial institution that is not an affiliate of the lessee or licensee, in the form of an escrow account accessible by the [Upstream] Commission.” 476 These funds may only be used for decommissioning expenses. 477 If the lessee or licensee fails to follow its decommissioning plan, the Upstream Commission may (on notice and following a reasonable cure period) withdraw the funds itself to pay for the decommissioning services of a third party. 478

13.3.2 Guarantee, Bonding, and Security Arrangements

The primary security arrangement for decommissioning obligations is the decommissioning fund (see Section 13.3.1: “Decommissioning Funding Structures” above).

Additionally, the Petroleum Industry Act provides that the Minister of Petroleum Resources must approve changes of control involving holders of petroleum leases and licenses (excluding prospecting licenses). 479


474 Id.

475 Id. at Cap. (2) § 233(7).

476 Id. at Cap. (2) § 233(1).

477 Id. at Cap. (2) § 233(2).

478 Id. at Cap. (2) § 233(3).

13.3.3 Tax Treatment of Decommissioning

Contributions to a decommissioning fund are both eligible for cost recovery and tax deductible, but expenses paid using the resources of a decommissioning fund are not eligible for cost recovery or tax deduction at the time that they are incurred.\(^{480}\)

If there are excess amounts in a decommissioning fund after the final decommissioning approval by the Commission, the excess is “considered income for production sharing or tax purposes,” and will be refunded to the licensee or lessee (subject to ordinary profit sharing and taxation).\(^{481}\)

13.4 Decommissioning Provisions in Nigerian Contracts\(^ {482}\)

13.4.1 Existence and Scope of Decommissioning Provisions

A 2003 Nigerian contract analyzed for this report does not contain an extensive decommissioning clause, but sets forth terms for an “Abandonment Security” agreement and establishes that the decommissioning process shall be carried out in accordance with the regulation on decommissioning and abandonment guidelines issued by the Nigerian Department of Petroleum Resources.\(^ {483}\) Nigerian contracts from 2007 and 2011 contain broad definitions of “decommissioning,” which encompass “the plugging and abandonment of wells, the removal and disposal of equipment and facilities including well heads, processing and storage facilities, platforms, pipelines, transport and export facilities, roads, buildings, wharves, plants, machinery,


\(^{481}\) Id. at Cap. (2) § 233(12).

\(^{482}\) As previously noted in the introduction to this paper, the contracts analyzed in this section may have been concluded before the enactment of the latest regulations analyzed in this paper. These contracts may also be subject to stabilization clauses, legislative “grandfathering” provisions, or other jurisdiction-specific legal principles that limit the relevance of generally applicable laws and regulations. Finally, contracts are taken at face value, and we make no assessments as to whether any particular contractual clause is legal or enforceable in any relevant jurisdiction.

fixtures, [and] the restoration of sites and structures,” including the payment of damages relating thereto.\textsuperscript{484}

13.4.2 Triggers of Decommissioning Liability

Under the 2003 contract analyzed for this report, decommissioning obligations are triggered upon the termination of the private oil company’s operations.\textsuperscript{485}

13.4.3 Development and Scope of Decommissioning Plan

While analyzed Nigerian contracts contained decommissioning provisions related to financing and securing decommissioning obligations, they do not set forth independent contractual requirements relating to the development or submission of a decommissioning plan.\textsuperscript{486}

13.4.4 Environmental Obligations as Contractual Standards

A Nigerian contract from 2003 analyzed for this report assigns liability to the private oil company for “any environmental clean-up related directly or indirectly to operations,” but does not otherwise set environmental standards for decommissioning.\textsuperscript{487}

\begin{itemize}
\item \textsuperscript{484} Nigerian National Petroleum Corporation, Gas Transmission and Power Limited, Energy 905 Suntera Limited, Ideal Oil and Gas, Production Sharing Agreement, 2007, Clause 1(r), \url{https://resourcecontracts.org/contract/ocds-591adf-0523462294/view/#/pdf};


\end{itemize}
13.4.5 Government Approval and Oversight

Under a 2003 Nigerian contract, any request to defer the contracting private oil company’s decommissioning obligations must be referred to the Department of Petroleum Resources for consideration and approval.\textsuperscript{488}

13.4.6 Funding

In analyzed Nigerian contracts from 2003 and 2007, the private oil company is required to provide security to satisfy abandonment obligations, either in the form of an abandonment fund\textsuperscript{489} or, in the 2007 contract, at the contractor’s option “in the form of a standby letter of credit or corporate or bank guarantee,” subject to certain creditworthiness requirements.\textsuperscript{490} The private oil company remains responsibility for any shortfall or surplus arising from the decommissioning or abandonment operations.\textsuperscript{491} Analyzed Nigerian contracts did not grant any particular tax benefits to the fund.\textsuperscript{492}


14. APPENDIX 8: NORWAY

14.1 Sources of Law

14.1.1 Major International Conventions

Norway is a party to the Geneva Convention, a party to UNCLOS, a member of the IMO, and a party to both the London Convention and the 1996 protocol. At the regional level Norway is also a contracting party to the OSPAR Convention.

14.1.2 National Law

Since 1963, Norway has reserved “exclusive rights to subsea natural resources for the state.” While the decommissioning process in Norway is governed by a number of laws and regulations, the primary laws that shape decommissioning liability are the Petroleum Act of 1996 and the accompanying Petroleum Regulations. “The [Petroleum] Act is administered by the Norwegian Ministry of Petroleum and Energy . . . who make decisions on the acceptable disposal method based on each individual case.” The Norwegian Petroleum Directorate acts as an advisor and administrator under the Ministry of Petroleum and Energy.

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499 Id. at 542, 548.


Since 1965, private companies have participated in Norway’s offshore oil and gas industry through a series of increasingly regulated licenses, which grant “exclusive rights to survey, exploration drilling and production of petroleum deposits in areas covered by the license.” The Petroleum Act itself contains “comprehensive obligations” that require licensees to engage in decommissioning. The Petroleum Act also allows the government to require licensees to enter into contracts with licensees as a condition of the license, and these standardized joint operating agreements (“JOAs”) are “in practice rendered mandatory by the [Ministry of Petroleum and Energy] as part of the license award.” These JOAs contain additional decommissioning obligations.

Two important state-owned entities play a direct economic role in the Norwegian leasing process: Petoro AS and Equinor ASA. Since 1985, Norway has controlled equity stakes in some oil and gas production licenses through its State Direct Financial Interest (“SDFI”) system. Under the SDFI system, some production licenses allocate a portion of the equity in the license to the State through Petoro, a wholly state-owned entity. Petoro directly manages Norway’s SDFI as a fiduciary, with the primary goal of “maximizi[zing] state revenues from the portfolio.” Separately, Equinor ASA (formerly Statoil), is a publicly traded energy company that operates “about 70% of all


505 Catherine Bannet, Norway, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 541, 548 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

506 Id.


oil and gas production on the Norwegian shelf.” 510 Norway owns a 67% stake in Equinor, but Equinor is “run on a commercial basis” and has operations across the world. 511

14.2 Liability for Decommissioning

14.2.1 Responsibility for Decommissioning

The Petroleum Act states that “the licensees who jointly hold a license are jointly and severally responsible to the state for financial obligations arising out of” the licensed petroleum activities. 512 This liability structure is incorporated into Norway’s standard JOA. 513 Licensee holders must draft a decommissioning plan, including a thorough environmental and commercial impact assessment, between 2 and 5 years prior to the license’s expiration. 514 This plan is subject to approval by the Ministry of Petroleum and Energy, and before a decommissioning plan is enacted “all financially profitable and recoverable oil and gas resources must have been produced.” 515

Since 2009, Norway has also applied a form of trailing liability. 516 Section 5-3 of the Petroleum Act provides that, if a license or interest has been transferred to a new holder, “the assignor shall be alternately liable for financial obligations” in proportion to their previously owned share if the costs “are not covered by the licensee or another responsible party.” 517 If there are multiple transfers of an interest liability remains with each previous interest holder, but “claims shall initially be directed to the company being the previous assignor of the participating interest.” 518

It is important to note that this liability structure does not shield Norway itself from economic exposure to decommissioning costs. “[T]he State is a direct participant in many licensees through

510 Id.
511 Id.
513 Catherine Bannet, Norway, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 541, 555 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).
514 Id. at 550.
515 Id.
516 Id. at 553.
517 Act 29 November 1996 No. 72 Relating to Petroleum Activities § 5-3 (Nor.).
518 Id.
Petoro AS,” and Petoro is liable for a share of the decommissioning costs.\(^{519}\) Norway is similarly exposed to decommissioning costs as a shareholder in Equinor, which has significant decommissioning liability of its own as one of the largest offshore operators in Norway.\(^{520}\)

**14.2.2 Post-Decommissioning Liability**

Section 5-4 of the Petroleum Act provides that the party who is obliged to undertake decommissioning “is liable for damage or inconvenience caused wilfully or negligently in connection with disposal of the facility or other implementation of the [decommissioning] decision.”\(^{521}\) However, if abandonment, rather than decommissioning, is approved, Norway may negotiate with the licensees to assume post-decommissioning liability “based on an agreed financial compensation.”\(^{522}\)

**14.3 Financing Decommissioning**

**14.3.1 Decommissioning Funding Structures**

Offshore decommissioning obligations in Norway are funded by the lessee and interest-holders on a “pay-as-you-go” system.\(^{523}\)

**14.3.2 Guarantee, Bonding, and Security Arrangements**

Norway does not have standardized security structures. However, the Petroleum Act allows the Ministry of Petroleum and Energy to require a licensee to provide security, either when the license is granted or at any time afterwards.\(^{524}\) The ministry has significant flexibility around the form that security requirements will take, but in practice, and at a minimum, the ministry “will

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\(^{519}\) **Hanne Storestein & Guro Kristoffersen Lysnes, Liability for Decommissioning of Oil and Gas Installations on the Norwegian Continental Shelf: Norwegian Public and Private Law Perspectives 7** (Univ. Bergen May 10, 2022).


\(^{521}\) Act 29 November 1996 No. 72 Relating to Petroleum Activities § 5-4 (Nor.).

\(^{522}\) Id.


\(^{524}\) Act 29 November 1996 No. 72 Relating to Petroleum Activities § 10-7 (Nor.).
require any licensee that has a parent company to provide an unlimited parent company guarantee conforming to a model form. The ministry may also evaluates transfers of, or changes of control over, licensees, to ensure the financial capacity of the new owner or operator. Through this process, the ministry “may decline the transfer or conditionally approve it subject to establishing security in another form.”

A secondary set of guarantee mechanisms have arisen following Norway’s introduction of trailing liability. Because transferees remain indefinitely liable for the decommissioning obligations of their transferors, transferees often negotiate some form of security agreement, guarantee, or bonding arrangement in their asset transfer agreements.

14.3.3 Tax Treatment of Decommissioning

Offshore decommissioning costs in Norway are tax deductible in the year that decommissioning work is actually carried out. However, companies may carry forward decommissioning cost losses “indefinitely,” and may “carry back” their decommissioning costs “as deductibles in general income in the two income years prior to the year in question.”

14.4 Decommissioning Provisions in Norwegian Contracts

The dataset reviewed for this report only contained one Norwegian contract, a model contract that contains no provisions regarding decommissioning obligations.

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526 Id.

527 Id.

528 Catherine Bannet, Norway, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 541, 554 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).


530 Id. at 172.

531 As previously noted in the introduction to this paper, the contracts analyzed in this section may have been concluded before the enactment of the latest regulations analyzed in this paper. These contracts may also be subject to stabilization
15. APPENDIX 9: UNITED KINGDOM

15.1 Sources of Law

15.1.1 Major International Conventions

The United Kingdom is a party to the Geneva Convention, a party to UNCLOS, a member of the IMO, and a party to both the London Convention and the 1996 protocol. At the regional level the United Kingdom is also a contracting party to the OSPAR Convention.

15.1.2 National Law

The primary law governing offshore oil and gas in the United Kingdom is the Petroleum Act of 1988, as amended by the Energy Act of 2008 and the Energy Act of 2016. The Petroleum Act vests the Crown with “the exclusive right of searching and boring for and getting petroleum” that “exists in its natural condition . . . beneath the territorial sea adjacent to the United Kingdom.” The Continental Shelf Act of 1964 similarly vests the Crown with exploration and extraction rights over petroleum on the United Kingdom Continental Shelf. Private companies participate in offshore clauses, legislative “grandfathering” provisions, or other jurisdiction-specific legal principles that limit the relevance of generally applicable laws and regulations. Finally, contracts are taken at face value, and we make no assessments as to whether any particular contractual clause is legal or enforceable in any relevant jurisdiction.


538 Petroleum Act 1988, Ch. 17, § 2 (Eng.).

upstream oil and gas production through a comprehensive licensing regime. Licenses are issued and administered by the North Sea Transition Authority (“NSTA”), the new name for a specialized regulator that was known until March 21, 2022 as the Oil and Gas Authority (“OGA”).

Part IV of the Petroleum Act governs the decommissioning and abandonment of offshore installations, and broadly authorizes the Secretary of State for Business, Energy, and Industrial Strategy (the “Secretary”) to issue decommissioning directions, set decommissioning regulations, and require financial assurances for decommissioning obligations. A specialized regulator within the Department for Business, Energy and Industrial Strategy (“BEIS”), the Offshore Petroleum Regulator for Environment and Decommissioning (“OPRED”), is charged with regulating and administering “environmental and decommissioning activity for offshore oil and gas operations.” In 2018 OPRED produced a set of comprehensive guidance, “Guidance Notes: Decommissioning of Offshore Oil and Gas Installations and Pipelines,” that outline and clarify statutory decommissioning requirements. These guidance notes do not have the full force of regulation, and a party responsible for decommissioning does not need to strictly comply with the guidance if it can show that its own approach “is at least as good as” the guidance.

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540 See Overview, NORTH SEA TRANSITION AUTHORITY (Aug. 29, 2022), https://www.nsta.co.uk/licensing-consents/overview/.


542 Petroleum Act 1988, Ch. 17, Part IV §§ 28A–45A (Eng.).


545 John Patterson, United Kingdom, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 631, 634n.11 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).
15.2 Liability for Decommissioning

15.2.1 Responsibility for Decommissioning

Under Section 29 of the Petroleum Act, the Secretary has the power to require people or entities involved with offshore petroleum installations to submit comprehensive decommissioning plans for the Secretary’s approval.546 These requirements, issued through “notices,” may be directed towards a variety of interest-holders, including current license holders, managers, operators, or owners “and their associated persons (such as affiliates and entities in which 50% or more of shares are held).”547

In practice these plans are coordinated closely with OPRED before any Section 29 notice is issued, and informal conversations between OPRED and the offshore operator may begin as much as 5 years before operations are expected to cease.548 OPRED and the responsible operator will generally agree to a decommissioning plan before the Secretary issues a formal Section 29 notice.549

After a decommissioning plan has been approved, it is “the duty of each of the persons who submitted it to secure that it is carried out and that any conditions to which the approval is subject are complied with.”550 In addition, “[f]ormer owners (and their associated persons) can be made liable to carry out decommissioning programmes” if they would have qualified to receive a Section 29 notice “at some time since the giving of the first Section 29 Notice in relation to that installation or pipeline.” 551 In effect this means that licensees who transfer their interests after the

546 Petroleum Act 1988, Ch. 17, § 29 (Eng.).


549 Id.

550 Petroleum Act 1988, Ch. 17, § 36 (Eng.).

decommissioning process has begun may be recalled to fulfill decommissioning obligations. However, a 2021 High Court case clarified that former owners are only liable for decommissioning infrastructure that had been built, or was intended to be built, at the time that they sold their interest.

15.2.2 Post-Decommissioning Liability

The owners of an offshore installation or pipeline at the time of its decommissioning “remain the owners of any residues and remains after decommissioning,” and “[r]esidual liability remains with the owners in perpetuity.” “The relinquishment of the field licence is not related to completion of a decommissioning programme or any ongoing liabilities under it.” In practice, however, liability to third parties is limited by principles of English and Scottish common law, which provides that the owner of an offshore installation is only liable for “loss arising from his or her negligence in circumstances where a duty of care is owed to the other party.” Professor John Patterson has noted that this “negligence” standard means that “the prudent owner . . . probably has little to fear with regard to residual liability” in English or Scottish courts.

In addition, any party with a duty to engage in decommissioning “remain[s] responsible for complying with any conditions attached to the Secretary’s approval of the decommissioning programme.”


555 Id. at 73.

556 John Patterson, *United Kingdom, in The Regulation of Decommissioning, Abandonment and Reuse Initiatives in the Oil and Gas Industry: From Obligation to Opportunities* 631, 642 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

557 Id.

558 GUIDANCE NOTES: Decommissioning of Offshore Oil and Gas Installations and Pipelines, Offshore Petroleum Regulator for Environment and Decommissioning 72 (Nov. 2018),
15.3 Financing Decommissioning

15.3.1 Decommissioning Funding Structures

Generally, offshore decommissioning obligations in the United Kingdom are funded by the operator and other interest holders on a “pay-as-you-go” system. However, certain financial instruments created to secure decommissioning obligations are given special legal status and protected from non-government creditors (see Section 15.3.2: “Guarantee, Bonding, and Security Arrangements” below).

15.3.2 Guarantee, Bonding, and Security Arrangements

The Petroleum Act authorizes the Secretary to investigate the financial status of any person who might be liable for decommissioning obligations. 559 At “various points during the lifecycle of a licence,” the NSTA may “undertake a financial assessment of the licensee.” 560 These assessments are particularly likely when a party is applying for certain authorizations from the NSTA, including the authority to assign their license or change control of the licensee. 561 As part of this process, NSTA may share information with OPRED, who will “use it to assess the ability of the Applicant and other relevant Licensees to meet decommissioning obligations.” 562 The NSTA will not consent to a license award, change of control, or a license assignment “if the company is not able to demonstrate its ability to meet its expected financial commitments, liabilities, and obligations.” 563

On a case-by-case basis, the Secretary may separately require liable parties to post security, set aside funds in a trust, or take other steps to guarantee their decommissioning obligations. 564 The Secretary may also require liable parties to enter a detailed “Decommissioning Security Agreement

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559 Petroleum Act 1988, Ch. 17, § 38(1), (1A)(a) (Eng.).
561 Id.
562 Id. at 7.
564 Id.
(‘DSA’) where it is deemed that the participants may be unable to pay for decommissioning costs.”

The Secretary may become a direct participant in a DSA where “there is a substantial unmitigated risk in a particular field,” so that the Secretary has greater control over the agreement and the ability to take direct action under the DSA if the other parties default in their obligations. Where the Secretary is a party to a DSA, OPRED guidance sets detailed security requirements.

Section 38A of the Petroleum Act provides special protection in bankruptcy for decommissioning security instruments, including guarantees, bonds, decommissioning funds, or other dedicated financial security structures. These instruments and funds are exempted from insolvency regimes, “or any other enactment or rule of law,” that would “prevent or restrict” those assets from being applied towards decommissioning expenses.

15.3.3 Tax Treatment of Decommissioning

Oil and gas extraction activities in the United Kingdom are subject to a special taxation regime, the “Ring Fence Corporation Tax,” that “isolates the profits from oil and gas extraction activities” for the purpose of taxation. Within this structure decommission costs are deductible as capital expenditure when the costs are incurred, and losses from decommissioning costs can generally “be carried forward and set against subsequent profits of the ring fence trade, without restriction.”

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565 Id.
567 See generally id. at Annex E: Decommissioning Security Agreements to Which the Secretary of State is a Party.
568 Petroleum Act 1988, Ch. 17, § 38A (Eng.).
569 Id. at § 38A(6).
571 Id.
The United Kingdom does not provide special tax treatment for contributions to decommissioning trust funds or other prefunding structures.573

15.4 Decommissioning Provisions in U.K. Contracts574

15.4.1 Existence and Scope of Decommissioning Provisions

While analyzed United Kingdom contracts from 2021 extensively discuss decommissioning, they broadly define decommissioning obligations by reference to “specification[s] approved by the [Oil and Gas Authority].”575

15.4.2 Triggers of Decommissioning Liability

Under analyzed UK contracts, the Oil and Gas Authority may direct the contracting private oil company to plug and abandon any nonproducing well at least one month before the expiry of the oil company’s contractual rights in relation to the well’s area.576 In addition, oil and gas companies must plug and abandon any wells at least one month before the expiration of their contractual rights over those wells, unless the Oil and Gas Authority specifically relieves them of that obligation.577

15.4.3 Development and Scope of Decommissioning Plan

While contracts from the United Kingdom refer to abandonment security and plugging and abandoning wells, they do not include any provisions relating to the creation or submission of a

573 Decommissioning and Abandonment: Relief for Contributions to Trust Funds, HMRC OIL TAXATION MANUAL (Feb. 21, 2023), https://www.gov.uk/hmrc-internal-manuals/oil-taxation-manual/ot28470.

574 As previously noted in the introduction to this paper, the contracts analyzed in this section may have been concluded before the enactment of the latest regulations analyzed in this paper. These contracts may also be subject to stabilization clauses, legislative “grandfathering” provisions, or other jurisdiction-specific legal principles that limit the relevance of generally applicable laws and regulations. Finally, contracts are taken at face value, and we make no assessments as to whether any particular contractual clause is legal or enforceable in any relevant jurisdiction.


decommissioning plan. Instead, they broadly require private oil and gas companies to comply with any decommissioning or abandonment directives issued by the Oil and Gas Authority. 578

15.4.4 Industry Best Practices as a Contractual Standard

Contracts concluded by the United Kingdom frequently use the term “good oilfield practice” as a reference for the behavior and obligations of private oil companies. 579 However, these contracts do not use this language in the specific context of decommissioning obligations, which instead require decommissioning to be conducted in an “efficient and workmanlike manner” and in accordance with regulatory guidance. 580

15.4.5 Government Approval and Oversight

United Kingdom contracts anticipate extensive government oversight over the decommissioning process. Two 2021 contracts analyzed for this report provide the Oil and Gas Authority the right to order decommissioning (subject to certain limitations), to inspect decommissioned wells and related records, and to provide detailed specifications about technical decommissioning standards. 581


16. APPENDIX 10: UNITED STATES

16.1 Sources of Law

16.1.1 Major International Conventions

The United States is a party to the Geneva Convention, a member of the IMO, and a party to the London Convention (but not the 1996 Protocol). The United States is also party to a number of bilateral treaties with Mexico regarding the governance of and sovereignty over oil and gas resources in the Gulf of Mexico, where the two countries share a nautical boundary.

While the United States was heavily involved in the drafting and negotiation of UNCLOS, the United States is one of the few countries in the world that is not a party to the Convention. As “the United States has yet to ratify the UNCLOS, [it] consequently is not bound by its terms.” However, since 1983 the executive branch of the United States has had an official policy of aligning its actions with the balance of interests codified in UNCLOS and U.S. courts occasionally look to UNCLOS as “a codification of customary international law.”

The United States has also signed, but not ratified, the 1996 protocol to the London Convention. However, national law generally mimics the requirements of the London protocol, so

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“the effective administration of relevant federal laws, as a practical matter, aligns actions of the United States with most provisions of the modernized treaty.”

16.1.2 National Law

Since the commercial exploitation of offshore oil began, there have been considerable disputes over the ownership and regulation of offshore oil and gas resources. Between 1947 and 1950 the Supreme Court adjudicated a series of disputes between the U.S. federal government and coastal state governments over control of offshore petroleum resources. In each case the Supreme Court held that the federal government had regulatory authority over and property rights in subsurface minerals under the territorial waters of the United States. Following these cases the federal government quickly passed the Submerged Lands Act of 1953, which gave the coastal states ownership of and regulatory authority over near-coastal waters and subsurface minerals. The Submerged Lands Act extends the authority of coastal states three nautical miles past their coastline (three marine leagues for Texas and the portions of Florida that border the Gulf of Mexico).


591 In the United States, unlike in many jurisdictions, the right to drill for oil and gas “typically belongs to the landowner, rather than the Sovereign.” Keith B. Hall, The United States of America, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 649, 649n.3 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

This distinction makes little difference in the context of offshore oil and gas because no private party in the United States owns the submerged land to which mineral rights might be attached; offshore mineral resources are the property of the government. This was not inevitable, however. Writing shortly after the resolution by Congress and the Supreme Court of offshore mineral ownership, one scholar noted that “[c]laimants have included the federal government, state governments, American Indians, farm co-operatives, and private land speculators.” James W. Corbitt Jr., The Federal-State Offshore Oil Dispute, 11 WM & MARY L. REV. 775, 775 (1970). The same scholar went on to remark, however, that “[t]he only serious contestants for ownership of the seabed wealth, however, have been the federal and coastal state governments.” Id.


593 See United States v. Texas, 339 U.S. 707, 719 (1950) (holding that the federal government had property rights over offshore oil as well as sovereignty because, “although dominium and imperium are normally separable and separate, this is an instance where property interests are so subordinated to the rights of sovereignty as to follow sovereignty.”).


federal government retains ownership of and authority over all other offshore oil and gas activity in U.S. waters.596

While a comprehensive overview of state leasing and permitting regimes is beyond the scope of this paper, states take a range of approaches to oil and gas leasing within state coastal waters. California, for example has a long-standing prohibition on offshore leasing. Offshore oil exploration was pioneered in California in 1897,597 and by 1921 California had a state-run offshore leasing and permitting program.598 However, California no longer issues new leases; in 1969 California placed a moratorium on offshore oil and gas leasing following a damaging oil spill, and since 1994 the entirety of California’s coast’ was made “off-limits to new oil and gas leases.”599 11 leases that were issued before the 1969 moratorium continue to actively produce oil and gas.600

“The primary federal law governing development of oil and gas in federal waters is the Outer Continental Shelf Lands Act” of 1953 (“OCSLA”).601 OCSLA allows private companies to participate in offshore oil and gas exploration and production through leases granted by the federal government.602 Two federal agencies regulate and supervise separate, but closely interrelated, areas of decommissioning. The Bureau of Ocean Energy Management (“BOEM”) is responsible for all oil, gas, and mineral leases in federal waters.603 In this role, “BOEM incorporates decommissioning requirements into the leases, right-of-way agreements, and right-of-use-and-easements that it grants,” and establishes security, guarantee, and bonding requirements to secure decommissioning

596 Id.
598 Oil & Gas, CALIFORNIA STATE LANDS COMMISSION (n.d.), https://www.slc.ca.gov/oil-gas/.
599 Id.
600 Id.
obligations. BOEM issues guidance around the application and interpretation of applicable regulations through Notices to Lessees and Operators (“NTLs”).

The Bureau of Safety and Environmental Enforcement (“BSEE”) is “the lead federal agency charged with improving safety and ensuring environmental protection related to the offshore energy industry . . . on the U.S. Outer Continental Shelf.” BSEE sets rules and technical standards for decommissioning, and generally acts as “the primary agency responsible for regulating decommissioning.” The BSEE is also involved in the financial aspects of decommissioning, as “BSEE is responsible for providing BOEM with decommissioning cost estimates that BOEM uses to determine, and later secure, financial assurances from operators.”

16.2 Liability for Decommissioning

16.2.1 Responsibility for Decommissioning

United States federal regulations provide that the owners and operators of offshore installations are responsible for decommissioning them. Decommissioning obligations accrue when a person drills a well, installs “a platform, pipeline, or other facility,” or otherwise creates an offshore “obstruction.” Decommissioning obligations also accrue to all lessees, owners of operating rights, or holders of pipeline rights-of-way where the underlying assets have not yet been fully decommissioned. If a person acquires a lease or operating rights, or otherwise becomes the lessee or operating rights-holder, they immediately become responsible for any decommissioning obligations attached to their acquired assets. If multiple people or entities incur decommissioning obligations for the same asset, they are held jointly and severally liable for fulfilling those obligations.

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608 30 C.F.R. § 250.1702 (a)–(c).
609 Id. at §250.1702(d), (e).
610 Id.
611 30 C.F.R. § 250.1701.
The former owners of federal offshore leases or offshore operating rights remain jointly and severally liable for the cost of decommissioning, even after they have assigned their lease or otherwise “allow[ed] it to lapse.” This trailing liability is limited to decommissioning obligations that accrued before BOEM approved the transfer of the former rightsholder’s interest; former owners and operators are not liable for decommissioning installations installed after their tenure.

An offshore facility must be decommissioned “within 1 year after the lease or pipeline right-of-way terminates,” unless the decommissioning party receives approval for the facility to be used for other activities. Separately, facilities must generally be decommissioned when they “are no longer useful for operations,” and BSEE has the authority to order responsible parties to plug offshore wells that “pose[] a hazard to safety or the environment” or are “not useful for lease operations and [are] not capable of oil, gas, or sulphur production in paying quantities.”

However, ambiguities around the “usefulness” of facilities left the regulations open to abuse, and in 2010 BSEE issued guidance to its lessees aimed at clarifying these ambiguities. This guidance, known as the “Idle Iron” policy, was designed to reduce hazards from offshore installations left effectively, if not legally, abandoned. The Idle Iron policy, which was updated in 2018, generally requires lessees to decommission wells and platforms that have not been used for mineral production or other authorized uses in the last five years.

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612 Keith B. Hall, *The United States of America, in The Regulation of Decommissioning, Abandonment and Reuse Initiatives in the Oil and Gas Industry: From Obligation to Opportunities* 649, 659 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

613 30 C.F.R. § 556.710; 30 C.F.R. § 556.805

614 30 C.F.R. § 250.1725(a).

615 30 C.F.R. § 250.1703.

616 30 C.F.R. § 250.1711.

617 Katherine Schmidt, ‘Idle Iron’ Guidance Could be Double-Edged Sword for Companies, *Houma Today* (Nov. 6, 2010), https://www.houmatoday.com/story/news/2010/11/07/idle-iron-guidance-could-be-double-edged-sword-for-companies/26946694007/ (quoting Evan Smith, director of the Tulane Energy Institute, as saying that “Over time, the practice has been if you come up with a reasonable excuse, and it has navigation lights on it, you can pretty much leave it out there.”).


16.2.2 Post-Decommissioning Liability

As a general matter, U.S. decommissioning regulations do not waive residual environmental liability of offshore oil and gas operators after decommissioning operations are complete. However, under a special statutory regime set up to facilitate state-run artificial reef programs, offshore oil and gas companies who transfer facilities to a state for transformation into an artificial reef “typically will have no continuing liability for monitoring the facilities” post-transfer.620 In addition, oil operators who transfer construction materials to an eligible reefing program are not “liable for damages arising from the use of such materials in an artificial reef,” so long as the materials meet certain statutory requirements “and are not otherwise defective at the time title is transferred.”621

16.3 Financing Decommissioning

16.3.1 Decommissioning Funding Structures

Decommissioning obligations in the United States are financed on a “pay-as-you-go” basis. However, lessees may be authorized to establish “a lease-specific abandonment account” as an alternative to other bonding and security mechanisms.622 These accounts must be held in a bank insured by the Federal Deposit Insurance Corporation, must be fully funded within a prescribed timeline “to cover all decommissioning costs as estimated by BOEM,” and “must be payable upon demand to BOEM and pledged to meet [the company’s] decommissioning obligations.”623

16.3.2 Guarantee, Bonding, and Security Arrangements

The United States requires companies participating in offshore oil and gas exploration and production to post security “to guarantee [the lessee’s] performance of all its offshore lease obligations, including decommissioning.”624 This security takes two forms: a base bond and an “additional security” requirement.


622 30 C.F.R. § 556.904(a).

623 30 C.F.R. § 556.904(a).

Before BOEM will “issue a new lease or approve the assignment of an existing lease,” a record title owner of the lease must issue a bond or provide other acceptable security up to a fixed amount “that guarantees compliance with all the terms and conditions of the lease.” The fixed bonding amount varies based on the lease’s stage of production. At a minimum, lessees must post USD 50,000 of security for each lease, or USD 300,000 for an “area-wide bond,” with “areas” defined broadly as three regions: (1) the Gulf of Mexico and Atlantic Coast, (2) the Pacific Coast and Hawaii, and (3) the Coast of Alaska. When exploration and development activities commence this amount increases to USD 200,000 per lease or USD 1 million per area, and when lease development and production activities commence these bonds increase to USD 500,000 per lease or USD 3 million per area.

BOEM is also authorized to require additional security, based on an evaluation of five financial factors: “financial capacity; projected strength; business stability; reliability; and record of compliance [with laws, regulations, and lease terms].” These factors are evaluated based on an assessment of the party’s audited financial statements, existing production and proven reserves, credit rating, and “business stability based on five years of continuous [offshore] operation and production,” among other factors. “Because of the significant expense associated with decommissioning, BOEM often determines that additional financial assurance is required.” At a baseline, supplemental security must take the form of a “surety bond” or treasury securities, although BOEM may approve alternative forms of security.

While this broad regulatory structure has remained relatively stable, in recent years the specific application of these regulations has been in flux. Between 2008 to 2016, under a standing NTL, BOEM exempted lessees from providing security if the company had a net worth of more than

625 30 C.F.R. § 556.900(a).
626 30 C.F.R. § 556.900(b).
627 30 C.F.R. § 556.901(a)–(b).
628 Robert James, Norman Carlin, Stella Pulman, Practitioner Insights: Decommissioning Offshore Oil Platforms, BLOOMBERG ENVIRONMENT & ENERGY (Jan. 27, 2017); see also
629 30 C.F.R. § 556.901(d).
631 30 C.F.R. § 556.902(e).
USD 65 million, it “did not have plugging and abandonment liabilities greater than half of its net worth,” and “it was producing an average of 20,000 barrels of oil equivalent per day or more.” This net worth test was subject to several exceptions, and companies could also self-insure if they passed certain debt-to-equity tests, or if they had a co-lessee “with sufficient financial strength to be exempt from posting additional financial insurance.” Under this regime, “specific security for decommissioning was uncommon” because many of the larger oil and gas companies were able to effectively self-insure.

In July 2016 BOEM issued NTL 2016-N01, which promised to substantially revise these financial strength assessment criteria. The 2016 NTL focused financial strength assessments on individual lessees, rather than assessing combined co-lessees, and set an upper limit for self-insurance of 10% of the relevant company’s net worth. However, in early 2017 BOEM “paused indefinitely the implementation of the 2016 NTL,” which has been “effectively mothballed” and is now listed as “rescinded” on BOEM’s website. On October 16, 2020, BOEM issued a Notice of Proposed Rulemaking that would roll back some assurance requirements and reduce the total amount of assurance private companies needed to provide, but no final regulation was promulgated. Instead, on June 29, 2023, BOEM issued a new Notice of Propose Rulemaking that would likely increase the total amount of decommissioning assurance (the “2023 Proposed Rule”).

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634 *Id. at* 457.


636 *Id. at* 458.


The 2023 Proposed Rule, if adopted, would significantly alter the United States’ decommissioning security rules. Among other changes, the 2023 Proposed Rule would replace BOEM’s current five-factor test for supplemental assurance with a more “streamline[d]” two-criteria test. Under the 2023 Proposed Rule, BOEM would exempt liable parties from supplemental collateral requirements based only on (1) their credit rating, or (2) the “3-to-1 ratio of the value of proved oil and gas reserves on a lease to the decommissioning liability associated with these reserves.” The 2023 Proposed Rule would apply a similar credit rating requirement to potential guarantors, although guarantors would not be able to leverage the value of associated leases “because that value is a characteristic of the lease belonging to the guaranteed lessee and not an asset belonging to the guarantor.” To add flexibility and encourage the use of third-party guarantees, the 2023 Proposed Rule would also allow third-party guarantors to guarantee only a limited set of entities or a limited amount of liability, rather than requiring every third-party guarantor “to ensure compliance with the obligations of all lessees, operating rights owners, and operators on the lease.” In addition, the 2023 Proposed Rule would update regulations “to clarify that BOEM will not approve the transfer of a lease interest, whether a record title interest or an operating rights interest, until the transferee complies with all applicable regulations and orders, including the financial assurance requirements.”

The 2023 Proposed Rule, if adopted, is expected to significantly increase the amount of decommissioning collateral available to the United States federal government. “BOEM estimates that the aggregate amount of supplemental financial assurance . . . for decommissioning activities would increase by an estimated [USD] 9.2 billion over current levels,” from a current estimated value of USD 42.8 billion.

641 Id. at 42,142.
642 Id. at 42,145.
643 Id.
644 42,146.
16.3.3 Tax Treatment of Decommissioning

Offshore decommissioning costs are treated as tax-deductible expenses. However, while decommissioning obligations accrue throughout the construction of an offshore facility, decommissioning expenses “cannot be deducted for tax purposes until the removal obligations are performed.” 646

16.4 Decommissioning Provisions in U.S. Contracts

The dataset reviewed for this report contained no United States contracts.

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646 Deloitte, Oil and Gas Taxation in the United States 3 (2013).