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SABIN CENTER FOR CLIMATE CHANGE LAW

Submitted Via *Regulations.gov*

August 28, 2023

The Honorable Debra Haaland,
Secretary of the U.S. Department of the Interior
Bureau of Ocean Energy Management,
Office of Regulations, Attn: Kelley Spence
45600 Woodland Road, Mailstop VAM-BOEM DIR,
Sterling, VA 20166, Room 5646, Washington, DC 20240

Re: Risk Management and Financial Assurance for OCS Lease and Grant Obligations
Docket ID: BOEM-2023-0027
RIN: 1010–AE14

Secretary Haaland,

The Sabin Center for Climate Change Law at Columbia Law School submits these comments in response to the notice of proposed rulemaking (NPRM) issued by the Bureau of Ocean Energy Management (BOEM) on June 29, 2023, entitled “Risk Management and Financial Assurance for OCS Lease and Grant Obligations,” 88 Fed. Reg. 42136 (the “Proposed Rule”).

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).¹ 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

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

² See *infra* note 8 and accompanying text.

³ 30 C.F.R. § 556.901(d)(1)(iv)(B).

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).

⁷ Risk Management and Financial Assurance for OCS Lease and Grant Obligations, 88 Fed. Reg. 42136, 42142–43 (proposed June 29, 2023) (hereinafter “Proposed Rule”).

⁸ In 2021, the Biden administration pledged that the United States would “achieve an economy-wide target of reducing its net greenhouse gas emissions by 50-52 percent below 2005 levels in 2030.” Nationally Determined Contribution: Reducing Greenhouse Gases in the United States: A 2030 Emissions Target, United States of America (Apr. 15, 2021), <https://unfccc.int/sites/default/files/NDC/2022-06/United%20States%20NDC%20April%2021%202021%20Final.pdf>. While Congress has yet to enshrine binding nation-wide emissions limits, federal agencies are already interpreting their statutory powers and obligations in light of the nation’s Paris Agreement commitments. See, e.g., Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks, U.S. National Highway Traffic Safety Administration, 87 Fed. Reg. 25710, 25984 (May 2, 2022) (noting that the National Highway Traffic Safety Administration’s authorizing statute “permits—and arguably requires—that NHTSA consider how it can best coordinate its CAFE standards with EPA’s GHG standards and the nation’s Paris Agreement commitments”).

emissions across their entire economies.⁹ 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.¹⁰ 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,¹¹ 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.”¹²

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.¹³ 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

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

⁹ Sini Matikainen & Eléonore Soubeyran, *What are Stranded Assets?* GRANTHAM RESEARCH INSTITUTE ON CLIMATE CHANGE AND THE ENVIRONMENT 1 (July 27, 2022), <https://www.lse.ac.uk/granthaminstitute/explainers/what-are-stranded-assets/>.

¹⁰ Sini Matikainen & Eléonore Soubeyran, *What are Stranded Assets?* GRANTHAM RESEARCH INSTITUTE ON CLIMATE CHANGE AND THE ENVIRONMENT (July 22, 2022), <https://www.lse.ac.uk/granthaminstitute/explainers/what-are-stranded-assets/>.

¹¹ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, SYNTHESIS REPORT OF THE IPCC SIXTH ASSESSMENT: SUMMARY FOR POLICYMAKERS 48 (Mar. 19, 2023), https://report.ipcc.ch/ar6syr/pdf/IPCC_AR6_SYR_LongerReport.pdf.

¹² See Dan Welsby, James Price, Steve Pye, & Paul Ekins, *Unextractable Fossil Fuels in a 1.5°C World*, 597 NATURE 230 (Sept. 9, 2021), <https://doi.org/10.1038/s41586-021-03821-8>.

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.

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_land/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.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.”¹⁷ However, in the wake of a series of bankruptcies between 2015 and 2016 that impacted “nearly half of [the United States’] coal production,”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.”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.”²⁰ The GAO’s review ultimately recommended that Congress consider eliminating SMCRA’s self-bonding provisions.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

¹⁶ 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).

¹⁷ *Id.*

¹⁸ Mark Olalde, *U.S. Coal Hasn’t Set Aside Enough Money to Clean up its Mines*, CLIMATE HOME NEWS (Mar. 14, 2018), <https://www.climatechangenews.com/2018/03/14/us-coal-hasnt-set-aside-enough-money-clean-mines/>.

¹⁹ U.S. Gov’t Accountability Off., GAO-18-305, *Coal Mine Reclamation: Federal and State Agencies Face Challenges in Managing Billions in Financial Assurances* 21 (2018).

²⁰ *Id.* at 23–24.

²¹ *Id.* at 27.

bond demands that, in turn, would have contributed to an increase in bankruptcy filings.”²² 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,²³ BOEM’s regulatory authority over offshore leasing is much broader.²⁴ 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.”²⁵ 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.”²⁶

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

²² Notice of Proposed Rulemaking on Risk Management, Financial Assurance and Loss Prevention, 85 Fed. Reg. 65,904, 65,906 (Oct. 16, 2020), <https://www.boem.gov/sites/default/files/documents/about-boem/regulations-guidance/federal-register/proposed-rules/85-FR-65904.pdf>.

²³ *See, e.g.*, 30 U.S.C. § 1259(c).

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.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.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."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.³⁰ This methodology is poorly suited for BOEM's purposes. Given the scope and scale of global climate action,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 *existing economic conditions*."³² This methodology might be adequate for the purposes of real-time SEC disclosures, but BOEM is explicitly using this

²⁷ *See id.*

²⁸ Notice of Proposed Rulemaking on Risk Management, Financial Assurance and Loss Prevention, 85 Fed. Reg. 65,904, 65,914 (Oct. 16, 2020), <https://www.boem.gov/sites/default/files/documents/about-boem/regulations-guidance/federal-register/proposed-rules/85-FR-65904.pdf>.

²⁹ *Id.*

³⁰ *See* Proposed Rule at 42172 (to be codified at 30 C.F.R. § 556.901(d)(4)) (citing 17 CFR §§ 210.4–10, 229.1200).

³¹ *See supra* Note 9 and accompanying text.

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

³³ National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, U.S. Council on Environmental Quality, 88 Fed. Reg. 1196, 1198 (Jan. 9, 2023).

³⁴ See, e.g., *Zero Zone, Inc. v. United States Dep't of Energy*, 832 F.3d 654 (7th Cir. 2016); *Montana Env't Info. Ctr. v. U.S. Off. of Surface Mining*, 274 F. Supp. 3d 1074 (D. Mont. 2017), *amended in part, adhered to in part sub nom.* *Montana Env't Info. Ctr. v. United States Off. of Surface Mining*, No. CV 15-106-M-DWM, 2017 WL 5047901 (D. Mont. Nov. 3, 2017); *High Country Conservation Advocs. v. United States Forest Serv.*, 52 F. Supp. 3d 1174 (D. Colo. 2014); *WildEarth Guardians v. Zinke*, No. CV 17-80-BLG-SPW-TJC, 2019 WL 2404860 (D. Mont. Feb. 11, 2019), *report and recommendation adopted sub nom.* *WildEarth Guardians v. Bernhardt*, No. CV 17-80-BLG-SPW, 2021 WL 363955 (D. Mont. Feb. 3, 2021).

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.”³⁵

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.³⁶ 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

³⁵ See 17 C.F.R. § 229.1202(a)(2) (2023).

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

³⁷ ICF INTERNATIONAL, INC. & TSB OFFSHORE, INC IN COLLABORATION WITH THE BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT, DECOMMISSIONING METHODOLOGY AND COST EVALUATION § 10-3 (2017), <https://www.bsee.gov/sites/bsee.gov/files/tap-technical-assessment-program/738aa.pdf>.

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).

⁴⁰ *Electric Vehicles*, INTERNATIONAL ENERGY AGENCY (July 11, 2023), <https://www.iea.org/energy-system/transport/electric-vehicles>.

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.”⁴¹ 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,⁴² 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.⁴³ 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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⁴¹ Tackling the Climate Crisis at Home and Abroad, Exec. Order No. 14008, 86 Fed. Reg. 7619, 7622 (Jan. 27, 2021).

⁴² 43 U.S.C. § 1338a.

⁴³ Proposed Rule at 42140.



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AND COLUMBIA CLIMATE SCHOOL

**DECOMMISSIONING LIABILITY AT THE
END OF OFFSHORE OIL AND GAS:**
A Review of International Obligations,
National Laws, and Contractual
Approaches in Ten Jurisdictions

By Martin Lockman, Martin Dietrich Brauch, Esteban F.
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Prepublication Draft: August 2023

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Columbia Law School

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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Acknowledgements: The authors would like to thank the Institute for Energy Economics and Financial Analysis (IEEFA) for commissioning and supporting this study and for providing comments on a draft. The Sabin Center for Climate Change Law and the Columbia Center on Sustainable Investment are responsible for the final contents. In addition, the authors would like to thank Dylan Shamoon, Samar Rizvi, and Duoye Xu for their research support in the early stages of this project.

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

¹ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, SYNTHESIS REPORT OF THE IPCC SIXTH ASSESSMENT: SUMMARY FOR POLICYMAKERS 48 (Mar. 19, 2023), https://report.ipcc.ch/ar6syrr/pdf/IPCC_AR6_SYR_LongerReport.pdf.

² See Dan Welsby, James Price, Steve Pye, & Paul Ekins, *Unextractable Fossil Fuels in a 1.5°C World*, 597 NATURE 230 (Sept. 9, 2021), <https://doi.org/10.1038/s41586-021-03821-8>.

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

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.

⁶ See CONSULTATION ON ESTABLISHING THE OFFSHORE DECOMMISSIONING REGIME FOR CO₂ TRANSPORT AND STORAGE NETWORKS 36, U.K. DEPARTMENT FOR BUSINESS, ENERGY & INDUSTRIAL STRATEGY (Aug. 2021), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1007773/ccus-decommissioning-consultation.pdf (describing the United Kingdom as a “decommissioner of last resort” when private actors have failed”).

⁷ Annie Leeks, Steven Smith, Sylvia Tonova, & David Wallach, *Offshore Oil And Gas Field Decommissioning: Disputes And Other Challenges*, MONDAQ (Oct. 23, 2021), <https://www.mondaq.com/unitedstates/oil-gas-electricity/1123876/offshore-oil-and-gas-field-decommissioning-disputes-and-other-challenges>.

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.⁹ 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.¹⁰ 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.¹¹ Governments should consider modifying stabilization clauses in line with international best practices to allow them to mandate early decommissioning if offshore

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.”¹² Today, more than 12,000 offshore oil and gas installations straddle the globe,¹³ from the Perdido spar moored in 8,000-foot deep water off the Gulf of Mexico¹⁴ to the 200,000 ton Berkut oil platform on the east coast of Russia.¹⁵ Industry analysts anticipate annual offshore oil and gas investments to reach USD 173 billion by 2024.¹⁶ A number of oil and gas companies are expected to significantly expand their offshore drilling activities in the coming years.¹⁷ 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.”¹⁸ In the face of increasing demand for decommissioning, some have predicted that decommissioning costs may increase significantly.¹⁹

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

¹² *Offshore Oil and Gas: Offshore Drilling*, (Oct. 4, 2022), <https://www.eia.gov/energyexplained/oil-and-petroleum-products/offshore-oil-and-gas-in-depth.php>.

¹³ Isabelle Gerretsen, *The New Use for Abandoned Oil Rigs*, BBC (Jan. 26, 2021), <https://www.bbc.com/future/article/20210126-the-richest-human-made-marine-habitats-in-the-world>.

¹⁴ *Perdido*, SHELL (n.d.), <https://www.shell.com/about-us/major-projects/perdido.html>.

¹⁵ Tim Newcomb, *7 of the World’s Biggest and Baddest Offshore Structures*, POPULAR MECHANICS (Jan. 22, 2017), <https://www.popularmechanics.com/technology/infrastructure/g2926/7-of-the-biggest-offshore-structures/>.

¹⁶ Rod Nickel & Sabrina Valle, *This Decade’s Oil Boom is Moving Offshore — Way Offshore*, REUTERS (Aug. 31, 2022), <https://www.reuters.com/business/energy/this-decades-oil-boom-is-moving-offshore-way-offshore-2022-08-31/>.

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”).

¹⁸ Christian de los Reyes Ullevik, *Are We Entering a Decade of Offshore Decommissioning?*, S&P GLOBAL COMMODITY INSIGHTS (Oct. 5, 2021), <https://www.spglobal.com/commodityinsights/en/ci/research-analysis/decade-of-offshore-decommissioning.html>.

¹⁹ Andrew Reid, *Offshore Energy: Are Decommissioning Costs Set to Spiral?*, OFFSHORE ENGINEER (Mar. 1, 2022), <https://www.oedigital.com/news/494667-offshore-energy-are-decommissioning-costs-set-to-spiral>.

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.

²⁰ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, SYNTHESIS REPORT OF THE IPCC SIXTH ASSESSMENT: SUMMARY FOR POLICYMAKERS 48 (Mar. 19, 2023), https://report.ipcc.ch/ar6syr/pdf/IPCC_AR6_SYR_LongerReport.pdf.

²¹ See Dan Welsby, James Price, Steve Pye, & Paul Ekins, *Unextractable Fossil Fuels in a 1.5°C World*, 597 NATURE 230 (Sept. 9, 2021), <https://doi.org/10.1038/s41586-021-03821-8>.

²² Sini Matikainen & Eléonore Soubeyran, *What are Stranded Assets?* GRANTHAM RESEARCH INSTITUTE ON CLIMATE CHANGE AND THE ENVIRONMENT (July 22, 2022), <https://www.lse.ac.uk/granthaminstitute/explainers/what-are-stranded-assets/>.

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).

²⁴ See CONSULTATION ON ESTABLISHING THE OFFSHORE DECOMMISSIONING REGIME FOR CO₂ TRANSPORT AND STORAGE NETWORKS 36, U.K. DEPARTMENT FOR BUSINESS, ENERGY & INDUSTRIAL STRATEGY (Aug. 2021), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1007773/ccus-decommissioning-consultation.pdf (describing the United Kingdom as a “decommissioner of last resort” when private actors have failed”).

²⁵ See *infra* Section 2.1: “International Law.”

²⁶ Annie Leeks, Steven Smith, Sylvia Tordova, & David Wallach, *Offshore Oil And Gas Field Decommissioning: Disputes And Other Challenges*, MONDAQ (Oct. 23, 2021), <https://www.mondaq.com/unitedstates/oil-gas-electricity/1123876/offshore-oil-and-gas-field-decommissioning-disputes-and-other-challenges>.

This paper provides an overview of statutory, regulatory, and contractual²⁷ 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,²⁸ others like the United States have decades of experience decommissioning deepwater installations.²⁹ 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.³⁰ 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 Rodríguez, 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.bnamericas.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

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

same areas highlighted in the body of the paper: sources of decommissioning law, allocation of decommissioning liability, and decommissioning finance structures.

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.³³ 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.”³⁴

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), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1007773/ccus-decommissioning-consultation.pdf.

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.

³⁶ Seline Trevisanut, *Decommissioning of Offshore Installations: a Fragmented and Ineffectual International Regulatory Framework*, in *THE LAW OF THE SEABED: ACCESS, USES, AND PROTECTION OF SEABED RESOURCES* 431, 432 (Catherine Banet ed. 2020).

³⁷ Geneva Convention on the Continental Shelf art. 5(5), Apr. 29, 1958, 499 U.N.T.S. 311.

³⁸ Leon Moller, *U.N. Law on Decommissioning Offshore Installations*, in *OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE* 21, 29 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

³⁹ Convention on the Prevention of Marine Pollution by the Dumping of Wastes and Other Matter, art. III(1)(a)(ii), Dec. 29, 1972, 1046 U.N.T.S. 120.

⁴⁰ STUDY ON DECOMMISSIONING OF OFFSHORE OIL AND GAS INSTALLATIONS: A TECHNICAL, LEGAL AND POLITICAL ANALYSIS 85, EUROPEAN COMMISSION (Sept. 2021), <https://op.europa.eu/en/publication-detail/-/publication/7d7d51a5-8d44-11ec-8c40-01aa75ed71a1>.

⁴¹ UNITED NATIONS ENVIRONMENT PROGRAMME, LONDON CONVENTION AND PROTOCOL/UNEP: GUIDANCE FOR THE PLACEMENT OF ARTIFICIAL REEFS 13–14, UNEP REGIONAL SEAS REPORTS AND STUDIES NO. 187 (2009).

report, there are 87 parties to the London Convention and 53 parties to the 1996 modernization protocol.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.”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.⁴⁴ UNCLOS has 168 parties and is “one of the most widely ratified treaties.”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.”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.”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

⁴² *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter*, INTERNATIONAL MARITIME ORGANIZATION (n.d.), <https://www.imo.org/en/OurWork/Environment/Pages/London-Convention-Protocol.aspx>.

⁴³ Allison Leigh Richmond, *Scrutinizing the Shipwreck Salvage Standard: Should A Salvor Be Rewarded for Locating Historic Treasure?*, 23 N.Y. INT’L L. REV. 109, 125 (2010); see United Nations Convention on the Law of the Sea art. 311(1), Dec. 10, 1982, 1833 U.N.T.S. 397 (providing that UNCLOS “shall prevail, as between State Parties, over the Geneva Conventions on the Law of the Sea,” a set of four treaties including the Geneva Convention on the Continental Shelf).

⁴⁴ Seline Trevisanut, *Decommissioning of Offshore Installations: A Fragmented and Ineffectual International Regulatory Framework*, in THE LAW OF THE SEABED: ACCESS, USES, AND PROTECTION OF SEABED RESOURCES 431, 432 (Catherine Banet ed. 2020).

⁴⁵ UNCLOS: THE LAW OF THE SEA IN THE 21ST CENTURY ¶ 1, INTERNATIONAL RELATIONS AND DEFENSE COMMITTEE OF THE HOUSE OF LORDS OF THE UNITED KINGDOM (Mar. 1, 2022), <https://committees.parliament.uk/publications/9005/documents/159002/default/>.

⁴⁶ United Nations Convention on the Law of the Sea art. 81, Dec. 10, 1982, 1833 U.N.T.S. 397.

⁴⁷ United Nations Convention on the Law of the Sea art. 60(3), Dec. 10, 1982 1833 U.N.T.S. 397.

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.”⁴⁸ 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.”⁴⁹

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.”⁵⁰ 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).

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).

⁴⁹ United Nations Convention on the Law of the Sea art. 60(3), Dec. 10, 1982 1833 U.N.T.S. 397.

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

1 Office of the Staff Judge Advocate, U.S. Indo-Pacific Command, *The U.S. Position on the U.N. Convention on the Law of the Sea (UNCLOS)*, 97 INT’L L. STUD. 81, 82 (2021).

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

3 *Id.*

4 Office of the Staff Judge Advocate, U.S. Indo-Pacific Command, *The U.S. Position on the U.N. Convention on the Law of the Sea (UNCLOS)*, 97 INT’L L. STUD. 81, 82 (2021).

5 Ved P. Nanda, David K. Pansius, Bryan Neihart, *Unratified treaties*, in LITIGATION OF INTERNATIONAL DISPUTES IN U.S. COURTS (Dec. 2022).

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).

⁵² *Introduction to IMO*, INTERNATIONAL MARITIME ORGANIZATION (n.d.), <https://www.imo.org/en/About/Pages/Default.aspx>.

⁵³ 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, 31–32 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

⁵⁴ Leon Moller, *U.N. Law on Decommissioning Offshore Installations*, in *OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE* 21, 26 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

⁵⁵ Agência Nacional Do Petróleo, Gás Natural E Biocombustíveis - ANP, Concession Model Contract, 2018, <https://resourcecontracts.org/contract/ocds-591adf-1309539708/view#/pdf>.

⁵⁶ *Regional Seas Programmes*, UNITED NATIONS ENVIRONMENTAL PROGRAMME (n.d.), <https://www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes>.

and “ensur[ing] sustainable management” of the region.⁵⁷ It sets out a detailed framework surrounding decommissioning, and enshrines a strong presumption against decommissioning-in-place.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.”⁵⁹ The OSPAR Convention has been ratified by 15 states and the European Union.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.”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.”⁶² These guidelines “are intended to complement national decommissioning procedures, rather than replace them.”⁶³

⁵⁷ Alexandra Warwryk, Catherine Banet & Eduardo G. Pereira, *Regional Seas Conventions and Decommissioning*, in 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).

⁵⁸ *Id.* at 54–55.

⁵⁹ *Polluter Pays Principle*, OSPAR CONVENTION (n.d.), <https://www.ospar.org/convention/principles/polluter-pays-principle>.

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. *OSPAR Convention*, OSPAR CONVENTION (n.d.), <https://www.ospar.org/convention>.

⁶¹ *Declaration for the Establishment of the ASEAN Council on Petroleum (Ascope)* § 1, 6 ASEAN Economic Bulletin 189 (Nov. 1989).

⁶² Gabriel Procaccini, Paul Greening, & Eduardo Canales, *The Coming Decommissioning Wave in Southeast Asia: What to Expect and the Relevance of Experiences in the North Sea and U.S. Gulf of Mexico*, AKIN GUMP (Apr. 2, 2020), <https://www.akingump.com/en/insights/blogs/speaking-energy/the-coming-decommissioning-wave-in-southeast-asia-what-to-expect-and-the-relevance-of-experiences-in-the-north-sea-and-us-gulf-of-mexico>.

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”).¹ 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.”²

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.³

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.”⁴

Mexico’s offshore energy infrastructure is often developed in areas where no indigenous consultation is needed,⁵ but some decommissioning activities may impact neighboring indigenous communities and trigger consultation rights.⁶

- 1 *Ratifications of C169 - Indigenous and Tribal Peoples Convention, 1989 (No. 169)*, INTERNATIONAL LABOR ORGANIZATION (n.d.), https://www.ilo.org/dyn/normlex/en/f?p=1000:11300:0::NO:11300:P11300_INSTRUMENT_ID:312314
- 2 Convention (No. 169) Concerning Indigenous and Tribal People in Independent Countries, 27 June 1989, 1650 U.N.T.S. 383.
- 3 See generally Andrew Boni, Claudio Garibay, & Michael K. McCall, *Sustainable Mining, Indigenous Rights and Conservation: Conflict and Discourse in Wirikuta/Catorce, San Luis Potosi, Mexico*, 80 GEOJOURNAL 759 (2015) (discussing the Wirikuta conflict).
- 4 Carlos A. Escoto Carranza & Antonio Borja Charles, *Mexico*, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 465, 473–74 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).
- 5 *Indigenous Consults Slow Mexico’s Energy Plans*, Argus Media (Apr. 12, 2018), <https://www.argusmedia.com/en/news/1661023-indigenous-consults-slow-mexicos-energy-plans>.
- 6 See Shalanda H. Baker, *Mexican Energy Reform, Climate Change, and Energy Justice in Indigenous Communities*, 56 Nat. Res. J. 369, 382 n.93 and accompanying text (discussing potential disputes over energy infrastructure located in “ocean near the ancestral land” of indigenous groups in the Mexican state of Oaxaca).

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, *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).

⁶⁵ Robert T. Anderson, *Protecting Offshore Areas from Oil and Gas Leasing: Presidential Authority Under the Outer Continental Shelf Lands Act and the Antiquities Act*, 44 *ECOLOGY L.Q.* 727, 738–39 (2018) (describing a series of court decisions in the 20th century that confirmed federal control over submerged coastal lands, and the decision by Congress to “reverse[] the outcome by enacting the Submerged Lands Act.”).

⁶⁶ Aylin Cunsolo, *Oil and Gas Regulation in Australia: Overview*, THOMSON REUTERS PRACTICAL LAW (Dec. 1, 2020), <https://us.practicallaw.thomsonreuters.com/w-011-0184>.

⁶⁷ Alexandra Wawryk, *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 *infra* Section 3.1.2: “Trailing Liability.”

⁶⁹ Mark McAleer, Anne Beresford, & Lewis Pope, *WA Regulator Signals Divergence from Federal Approach to Decommissioning Obligations*, ALLENS LINKLATERS (Sept. 27, 2022), <https://www.allens.com.au/insights-news/insights/2022/09/Western-Australia-to-forge-its-own-oil-and-gas-decommissioning-path/>.

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."⁷⁰

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.⁷¹ Despite years of legal battles and a settlement agreement that included a USD 715 million payment from PETRONAS to Sarawak,⁷² jurisdiction over and ownership of petrochemicals remain subject to inter-governmental disputes.⁷³

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

⁷⁰ Trevor Thomas & Thomas Milner, *Country Updates: Australia*, INTERNATIONAL BAR ASSOCIATION (Mar. 2023), <https://www.ibanet.org/clint-march-2023-country-updates>.

⁷¹ See generally Wan M. Zulhafiz Wan Zahari & Farid Sufian bin Shuaib, *The Distribution of Petroleum Resources in Malaysia: Unpacking Federalism*, 13 J. WORLD ENERGY L. & BUS. 369 (2020) (discussing the legal background of jurisdictional disputes between Malaysia's state and federal governments over petrochemicals).

⁷² A. Ananthalakshmi, *Petronas Pays \$700M in Tax to Sarawak State after Dispute Settlement*, OFFSHORE ENGINEER (Sept. 18, 2020), <https://www.oedigital.com/news/481793-petronas-pays-700m-in-tax-to-sarawak-state-after-dispute-settlement>.

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

PRIMARY TYPES OF OFFSHORE OIL AND GAS CONTRACT

While offshore oil and gas contracts are complex and economically significant documents that may be highly negotiated, certain types of agreements share distinctive characteristics. The following descriptions are adapted from a 2015 analysis by the Natural Resource Governance Institute:¹

Concession agreements: Under a concession agreement, a host government grants an oil company the rights to develop petroleum resources in a given geographical area in exchange for royalties, fees, taxes, or other payments. The government may also participate directly in concession agreements as a joint venture partner of a private entity, and receive a share of the production. The oil company funds, and assumes all risks of, exploration, development, and production activities.

Production sharing contracts ("PSCs"): Under a PSC, the host government retains ownership of the petroleum resources and contracts with an oil company to develop the field in exchange for in-kind payments of produced oil or gas. The oil company provides the funding and recovers its costs from the field's production, sharing any profits with the government based on an agreed-upon formula.

Technical service agreements: Under a technical service agreement, a host government retains ownership and control of the petroleum resources, but contracts with an oil company to conduct exploration and construction work and manage the development process. The government pays the company in either cash or petroleum commodities based on the activities it performs, rather than the productivity of the resources.

1 NATIONAL RESOURCE GOVERNANCE INSTITUTE, *LEGAL FRAMEWORK: NAVIGATING THE WEB OF LAWS AND CONTRACTS GOVERNING EXTRACTIVE INDUSTRIES* (Mar. 2015), https://resourcegovernance.org/sites/default/files/nrgi_Legal-Framework.pdf.

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

⁷⁴ See also Kienzler, D., Toledano, P., Thomashausen, S., and Szoke-Burke, S. (June 2015). "Natural Resource Contracts as a Tool for Managing the Mining Sector." *Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)*. Pages 17-19.

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”⁷⁵ or change-in-law clauses, which limit the application of new or modified laws to contracts that have already been executed.⁷⁶ 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.⁷⁷ 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,⁷⁸ 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>.

⁷⁷ “Glossary: Stabilization Clause,” THOMSON REUTERS PRACTICAL LAW (n.d.), <https://uk.practicallaw.thomsonreuters.com/1-501-6477>.

⁷⁸ Howard Mann, *Stabilization in Investment Contracts: Rethinking the Context, Reformulating the Result*, INVESTMENT TREATY NEWS (Oct. 7, 2011), <https://www.iisd.org/itn/en/2011/10/07/stabilization-in-investment-contracts-rethinking-the-context-reformulating-the-result>.

“restore [the] rights, obligations, and benefits” of the original contract.⁷⁹ 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.⁸⁰

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).”⁸¹

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.⁸² More subtly, profit-sharing agreements between private companies and host governments may redistribute the economic burdens of decommissioning by allowing private companies to recoup

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-3664745125/view#/pdf>.”

⁸⁰ Petronas Carigali Sdn. Bhd., Triton Oil Company of Thailand, PSA, 1994, Article 21.3.

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).

⁸² For example, a 2005 contract from Libya analyzed for the Companion Report provides that “[e]ach Party shall bear and finance fifty percent (50%) of the costs, expenses and liabilities for Abandonment which may be incurred as a result of Development Operations and Exploitation Operations.” Verenex Energy Area 47 Libya Limited and Medco International Ventures Limited, Production Sharing Agreement, 2005, Article 26.2, <https://resourcecontracts.org/contract/ocds-591adf-5545997817/view#/pdf>.

their decommissioning costs before any leftover profits are shared. For example, in Angolan Production Sharing Agreements (“PSAs”),⁸³ while contractors are generally responsible for decommissioning expenses, they may recover the value of their planned contributions to decommission costs as “Cost Oil,”⁸⁴ before the remaining revenue, the “Profit Oil,” is split between the contractor and Angola.⁸⁵ 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,⁸⁶ the United Kingdom,⁸⁷ and the United States,⁸⁸ 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.⁸⁹ 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.”⁹⁰ Regimes that provide for trailing liability often emphasize that the mechanism “is intended as an

⁸³ In Angola private oil and gas companies operate under concession agreements entered into with a regulatory body. Rui Mayer, Bruno Neves de Sousa, & João Olivera, *Angola*, in *OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE* 225, 226–28 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

⁸⁴ *Id.* at 234–35.

⁸⁵ See Kirsten Bindemann, *Production-Sharing Agreements: An Economic Analysis*, OXFORD INSTITUTE FOR ENERGY STUDIES (Oct. 1999), <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2010/11/WPM25-ProductionSharingAgreementsAnEconomicAnalysis-KBindemann-1999.pdf> (defining common terms in PSAs).

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*, BRACEWELL (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).

⁹⁰ Trevor Thomas & Thomas Miller, *Trailing Liability for Asset Decommissioning in Australia*, LEXOLOGY (Aug. 30, 2022), <https://www.lexology.com/library/detail.aspx?g=2e20aa55-92d5-4894-8b15-7dbd60201ff8>

option of last resort and is expected to be used rarely.”⁹¹ 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,⁹² 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.”⁹³ Norway owns a 67% stake in Equinor, although Equinor is “run on a commercial basis” and has operations across the world.⁹⁴ Both of these entities have decommissioning obligations under Norwegian law; Petoro is liable for its own share of decommissioning costs alongside private stakeholders,⁹⁵ and Equinor has significant decommissioning liability of its own despite Norway’s equity stake.⁹⁶

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 regulation⁹⁷ 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

⁹¹ Press Release, Australian Department of Industry, Science, & Resources, Trailing Liability for Decommissioning of Offshore Petroleum Property Guidelines Released (Mar. 7, 2022), <https://www.industry.gov.au/news/trailing-liability-decommissioning-offshore-petroleum-property-guidelines-released>.

⁹² *The Government’s Revenues*, NORWEGIAN PETROLEUM (n.d.), <https://www.norskpetroleum.no/en/economy/governments-revenues/>.

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).

⁹⁶ See, e.g., Melisa Cavcic, *Equinor Closes Veslefrikk Chapter in Readiness for Decom Ops*, OFFSHORE ENERGY (Feb. 22, 2022), <https://www.offshore-energy.biz/equinor-closes-veslefrikk-chapter-in-readiness-for-decom-ops/> (discussing Equinor’s decommissioning of offshore oil and gas facilities in Norway).

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 parties¹⁰⁰ 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

⁹⁸ 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>.

⁹⁹ *Id.*

¹⁰⁰ Nigerian National Petroleum Corporation, Shell Petroleum Development Company of Nigeria Ltd., Nigerian Agip Oil Company Ltd., Elf Petroleum Nigeria Ltd., and Universal Energy Resources Limited, Farmout Agreement, 2003, Article 19.5.1 <https://resourcecontracts.org/contract/ocds-591adf-6921063233/view#/pdf>.

¹⁰¹ *Id.* at Article 14.4.

¹⁰² Oil and Gas Authority, Anasuria Hibiscus UK Limited, Zennor Exploration Limited, Exploitation and Exploration License, 2021, Article 19, <https://resourcecontracts.org/contract/ocds-591adf-6212621955/view#/pdf>.

“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

¹⁰³ Nigerian National Petroleum Corporation, Gas Transmission and Power Limited, Energy 905 Suntera Limited, Ideal Oil and Gas, Production Sharing Agreement, 2007, Clause 1(r), <https://resourcecontracts.org/contract/ocds-591adf-0523462294/view#/pdf>;

Nigerian Petroleum Development Company Limited, Atlantic Energy Drilling Concepts Nigeria Limited, Production Sharing Agreement, 2011, Annex C, Article 2(o), <https://resourcecontracts.org/contract/ocds-591adf-6476275683/view#/pdf>.

¹⁰⁴ GUIDANCE NOTES: DECOMMISSIONING OF OFFSHORE OIL AND GAS INSTALLATIONS AND PIPELINES, OFFSHORE PETROLEUM REGULATOR FOR ENVIRONMENT AND DECOMMISSIONING 72 (Nov. 2018), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/760560/Decom_Guidance_Notes_November_2018.pdf.

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.”¹⁰⁷ 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.¹⁰⁸

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.¹⁰⁹ This mechanism is fairly common, and jurisdictions as diverse as Australia¹¹⁰ and Norway¹¹¹ 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.”¹¹²

¹⁰⁷ Rui Mayer, Bruno Neves de Sousa, & João Olivera, *Angola*, in *OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE* 225, 231 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

¹⁰⁸ *New Rules on Abandonment of Wells and Decommissioning of Petroleum Facilities*, CLARENCE ABOGADOS & ASOCIADOS, (n.d.), <https://clarenceabogados.com/client-alert/new-rules-on-abandonment-and-decommissioning/>.

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-wiig-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.”).

¹¹² Heike Trischmann, *Decommissioning Security Agreements*, in *THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES* 117, 117 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

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

¹¹³ Luciana Braga & Helder Pinto Jr., *The Financial Aspects of Offshore Decommissioning and Brazilian Regulatory System in the Light of the Transnational Legal Order* 423, 443, 15 J. WORLD ENERGY L. & BUS. (Sept. 5, 2022).

¹¹⁴ Nigerian National Petroleum Corporation, Shell Petroleum Development Company of Nigeria Ltd., Nigerian Agip Oil Company Ltd., Elf Petroleum Nigeria Ltd., and Universal Energy Resources Limited, Farmout Agreement, 2003, Article 14, <https://resourcecontracts.org/contract/ocds-591adf-6921063233/view#/pdf>.

¹¹⁵ 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 28.4, <https://resourcecontracts.org/contract/ocds-591adf-3664745125/view#/pdf>.

¹¹⁶ “Though worldwide estimates vary greatly, on an 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.reuters.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 Australia¹¹⁷ 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

¹¹⁷ *Offshore Petroleum and Greenhouse Gas Storage Act 2006* S 571(2) (Austl.).

¹¹⁸ Bruno Belchior & Bárbara Leite, *Abandonment and Decommissioning*, BRAZIL ENERGY J. 7 (May 2022), <https://www.mayerbrown.com/-/media/files/perspectives-events/publications/2022/05/brazil-energy-journal--may--abandonment-and-decommissioning.pdf>.

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."

¹²⁰ Luciana Braga & Helder Pinto Jr., *The Financial Aspects of Offshore Decommissioning and Brazilian Regulatory System in the Light of the Transnational Legal Order* 423, 427, 15 J. WORLD ENERGY L. & BUS. (Sept. 5, 2022).

financial institutions that are authorized to operate in (or have affiliates who operate in) Brazil.¹²¹ These instruments are subject to detailed requirements, including minimum durations and risk ratings.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.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.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."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.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

¹²¹ Bruno Belchior & Bárbara Leite, *Abandonment and Decommissioning*, BRAZIL ENERGY J. 8 (May 2022), <https://www.mayerbrown.com/-/media/files/perspectives-events/publications/2022/05/brazil-energy-journal--may--abandonment-and-decommissioning.pdf>.

¹²² *Id.*

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

¹²⁴ 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-wiig-advokatfirma/parent-company-guarantee-requirement-for-future-decommissioning-cost-in-corporate-transfers-on-ncs>.

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

¹²⁶ 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).

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

¹²⁷ Jeffrey Kehne, *Encouraging Safety Through Insurance-Based Incentives: Financial Responsibility for Hazardous Wastes*, 96 YALE L.J. 403, 405 (1986).

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.

¹³¹ Luciana Braga & Helder Pinto Jr., *The Financial Aspects of Offshore Decommissioning and Brazilian Regulatory System in the Light of the Transnational Legal Order* 423, 443, 15 J. WORLD ENERGY L. & BUS. (Sept. 5, 2022).

¹³² 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>.

¹³³ Anton Latief, *Indonesia*, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 407, 413, 421–22 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

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

¹³⁴ Gabriel Procaccini, Paul Greening, & Eduardo Canales, *The Coming Decommissioning Wave in Southeast Asia: What to Expect and the Relevance of Experiences in the North Sea and U.S. Gulf of Mexico*, AKIN GUMP (Apr. 2, 2020), <https://www.akingump.com/en/insights/blogs/speaking-energy/the-coming-decommissioning-wave-in-southeast-asia-what-to-expect-and-the-relevance-of-experiences-in-the-north-sea-and-us-gulf-of-mexico>.

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.).

¹³⁸ Robert Hodges, *International Taxation*, in *OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE* 99 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

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.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.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.¹⁴²

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

TO OPPORTUNITIES 167 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

¹⁴⁰ The oil supermajor Shell (perhaps somewhat self-servingly) describes this treatment as "fundamental to regimes that tax profits" and notes that "[decommissioning costs in the oil and gas industry are treated consistently as a business expense." *Tax Contribution Report 2020: Case Study—Tax Treatment of Decommissioning Costs in Different Jurisdictions*, SHELL (2020), <https://reports.shell.com/tax-contribution-report/2020/our-business/upstream/case-study-tax-treatment-of-decommissioning-costs-in-different-jurisdictions.html>.

¹⁴¹ UNITED NATIONS HANDBOOK ON SELECTED ISSUES FOR TAXATION OF THE EXTRACTIVE INDUSTRIES BY DEVELOPING COUNTRIES, UNITED NATIONS 295–301 (2017), <https://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2020-03/UN%20Handbook%20on%20Selected%20Issues%20for%20Taxation%20of%20the%20Extractive%20Industries%20by%20Developing%20Countries.pdf>.

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).

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*).

¹⁴⁴ UNITED NATIONS HANDBOOK ON SELECTED ISSUES FOR TAXATION OF THE EXTRACTIVE INDUSTRIES BY DEVELOPING COUNTRIES, UNITED NATIONS 306 (2017), <https://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2020-03/UN%20Handbook%20on%20Selected%20Issues%20for%20Taxation%20of%20the%20Extractive%20Industries%20by%20Developing%20Countries.pdf>.

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

1 STEVE WALKER, REVIEW OF THE CIRCUMSTANCES THAT LED TO THE ADMINISTRATION OF THE NORTHERN OIL AND GAS AUSTRALIA (NOGA) GROUP OF COMPANIES (Commonwealth of Australia June 2020), <https://www.industry.gov.au/sites/default/files/2020-08/review-of-circumstances-that-led-to-the-administration-of-noga-executive-summary-and-recommendations.pdf>.

2 *Id.*

3 *Id.*

4 Mike Foley & Nick Toscano, *Woodside Hits Out at Rig Clean-Up Levy as Industry Rift with Government Widens*, SYDNEY MORNING HERALD (July 18, 2021), <https://www.smh.com.au/politics/federal/woodside-hits-out-at-rig-clean-up-levy-as-industry-rift-with-government-widens-20210715-p58a20.html>.

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

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.”

¹⁵¹ See *Stranded Assets*, CARBON TRACKER INITIATIVE (Aug. 23, 2017), <https://carbontracker.org/terms/stranded-assets/>.

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.¹⁵² In contrast, Norway only requires license holders to draft a decommissioning plan between 2 and 5 years before their license expires.¹⁵³ 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.¹⁵⁴ Jurisdictions may also require independent evaluations of decommissioning costs, rather than rely on private company-produced estimates. In

¹⁵² OVERVIEW OF INTERNATIONAL OFFSHORE DECOMMISSIONING REGULATIONS 199, INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (July 2017), <https://www.iogp.org/bookstore/product/overview-of-international-offshore-decommissioning-regulations-volume-1-facilities/>.

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).

¹⁵⁴ Federal Government of Brazil, *Petróleo Brasileiro S.A. Petrobras, Concession*, 2010, Article 14.9, <https://resourcecontracts.org/contract/ocds-591adf-9691553720/view#/pdf>.

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

¹⁵⁵ OFFSHORE OIL AND GAS: UPDATED REGULATIONS NEEDED TO IMPROVE PIPELINE OVERSIGHT AND DECOMMISSIONING, GAO (Mar. 2021), <https://www.gao.gov/assets/gao-21-293.pdf>.

¹⁵⁶ Gabriel Procaccini, Paul Greening, & Eduardo Canales, *The Coming Decommissioning Wave in Southeast Asia: What to Expect and the Relevance of Experiences in the North Sea and U.S. Gulf of Mexico*, AKIN GUMP (Apr. 2, 2020), <https://www.akingump.com/en/insights/blogs/speaking-energy/the-coming-decommissioning-wave-in-southeast-asia-what-to-expect-and-the-relevance-of-experiences-in-the-north-sea-and-us-gulf-of-mexico>; Anton Latief, *Indonesia*, in *THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES* 407, 413, 421–22 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

¹⁵⁷ Carlos de Maria y Campos, Antonio Borja, Germán Fernández, *Energy: Oil and Gas 2022 – Mexico: Law and Practice*, CHAMBERS & PARTNERS (June 21, 2022), <https://practiceguides.chambers.com/practice-guides/energy-oil-gas-2022/mexico/trends-and-developments>.

¹⁵⁸ Keith B. Hall, *Decommissioning of Offshore Oil and Gas Facilities in the United States*, 14 CHARLESTON L. REV. 437, 456 (2020).

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.”¹⁵⁹

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.”¹⁶⁰ Jurisdictions that permit self-insurance may face similar difficulties in a rapid phase-out scenario.

¹⁵⁹ Colin Mackie, Laurel Besco, *Rethinking the Function of Financial Assurance for End-of-Life Obligations*, 50 ENVTL. L. REP. (ELI) 10573, 10601 (2020) (emphasis original).

¹⁶⁰ Notice of Proposed Rulemaking on Risk Management, Financial Assurance and Loss Prevention, 85 Fed. Reg. 65,904, 65,906 (Oct. 16, 2020), <https://www.boem.gov/sites/default/files/documents/about-boem/regulations-guidance/federal-register/proposed-rules/85-FR-65904.pdf>.

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.¹ 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.”² 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.³ 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.⁴

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

2 *Id.*

3 See Mark Olalde, *Crackdown on Coal Mine “Self-Bonds” Stalls under Trump*, CLIMATE HOME NEWS (Mar. 15, 2018), <https://www.climatechangenews.com/2018/03/15/crackdown-coal-mine-self-bonds-stalls-trump/> (discussing the practice of self-bonding for coal decommissioning liabilities).

4 *Id.*

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,¹⁶¹ 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

¹⁶¹ 30 C.F.R. § 556.902(e).

guarantee of decommissioning costs.”¹⁶² 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.¹⁶³ 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.¹⁶⁴ 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.”¹⁶⁵ 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.¹⁶⁶

¹⁶² Luciana Braga & Helder Pinto Jr., *The Financial Aspects of Offshore Decommissioning and Brazilian Regulatory System in the Light of the Transnational Legal Order* 423, 427, 15 J. WORLD ENERGY L. & BUS. (Sept. 5, 2022).

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

¹⁶⁴ See George Cameron Coggins and Robert L. Glicksman, *General SMCRA Regulation*, in PUBLIC NATURAL RESOURCES LAW (2nd ed. Feb. 2023).

¹⁶⁵ Leslie Kaufman & Will Wade, *The Tiny Insurance Company Standing between Taxpayers and a Costly Coal Industry Bailout*, BLOOMBERG (Nov. 8, 2022), <https://www.bloomberg.com/news/features/2022-11-08/the-tiny-insurance-company-standing-between-taxpayers-and-a-costly-coal-industry-bailout>.

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."

¹⁶⁸ UNITED NATIONS HANDBOOK ON SELECTED ISSUES FOR TAXATION OF THE EXTRACTIVE INDUSTRIES BY DEVELOPING COUNTRIES, UNITED NATIONS 306 (2017), <https://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2020-03/UN%20Handbook%20on%20Selected%20Issues%20for%20Taxation%20of%20the%20Extractive%20Industries%20by%20Developing%20Countries.pdf>.

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.¹⁷⁰

5.5 Stabilization Clauses

A large body of literature addresses the effects of stabilization clauses in international oil and gas contracts,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.¹⁷² These stabilization clauses may create risks for governments where early decommissioning is driven by the law or public policy of the host jurisdiction.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

¹⁷⁰ *Tax Contribution Report 2020: Case Study—Tax Treatment of Decommissioning Costs in Different Jurisdictions*, SHELL (2020), <https://reports.shell.com/tax-contribution-report/2020/our-business/upstream/case-study-tax-treatment-of-decommissioning-costs-in-different-jurisdictions.html>.

¹⁷¹ See, e.g., Martin Dietrich Brauch, Perrine Toledano, and Cody Aceveda. *Allocation of Climate-Related Risks in Investor–State Mining Contracts*, COLUMBIA CENTER ON SUSTAINABLE INVESTMENT (June 28, 2022), https://scholarship.law.columbia.edu/sustainable_investment_staffpubs/224/.

¹⁷² Sociedade Nacional de Combustíveis de Angola - Empresa Pública (Sonangol, E.P.), CIE Angola Block 20 Ltd., Sonangol Pesquisa E Produção S.A., BP Exploration Angola (Kwanza Benguela) Limited, China Sonangol International Holding Limited, Production Sharing Agreement, 2012, Article 37, <https://resourcecontracts.org/contract/ocds-591adf-0014595575/view#/pdf>; see also 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, <https://resourcecontracts.org/contract/ocds-591adf-3664745125/view#/pdf> (same); Sociedade Nacional de Combustíveis de Angola - Empresa Pública (Sonangol, E.P.), CIE Angola Block 21 Ltd., Sonangol Pesquisa e Produção S.A., Nazaki Oil and Gáz S.A., Alper Oil Lda, Service Contract, 2010, Article 36, <https://resourcecontracts.org/contract/ocds-591adf-0839745741/view#/pdf> (same).

¹⁷³ See Martin Dietrich Brauch, *Climate Action Needs Investment Governance, Not Investment Protection and Arbitration*, COLUMBIA CENTER ON SUSTAINABLE INVESTMENT (Mar. 15, 2022), <https://ccsi.columbia.edu/news/climate-action-needs-investment-governance-not-investment-protection-isds> (discussing risks created by treaty frameworks that, like stabilization clauses, protect the “expectations” of fossil fuel investors against the transition away from fossil fuels).

of time (not indefinitely), and possibly by applying a stability premium on tax rates.”¹⁷⁴ 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.¹⁷⁵ 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.¹⁷⁶ Countries with significant offshore oil and gas industries have created sophisticated legal frameworks to assign liability for decommissioning expenses and ensure that oil companies fulfil 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.¹⁷⁷ 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,

¹⁷⁴ OECD, GUIDING PRINCIPLES FOR DURABLE EXTRACTIVE CONTRACTS ¶54, OECD DEVELOPMENT POLICY TOOLS, OECD PUBLISHING, PARIS (2020), <https://doi.org/10.1787/55c19888-en>.

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.¹⁷⁸ 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.¹⁷⁹ 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.¹⁸⁰ To the extent possible, governments should consider modifying stabilization clauses in line with

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,¹⁸¹ a member of the IMO,¹⁸² and a party to both the London Convention and its 1996 protocol.¹⁸³

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.¹⁸⁴ These laws and related oil industry regulations are enforced by the Ministry of Petroleum.¹⁸⁵ 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’).”¹⁸⁶ 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.”¹⁸⁷ This reorganization established ANPG as the regulator and concessionaire of

¹⁸¹ *United Nations Convention on the Law of the Sea*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=en.

¹⁸² *Member States*, INTERNATIONAL MARITIME ORGANIZATION (n.d.), <https://www.imo.org/en/OurWork/ERO/Pages/MemberStates.aspx>.

¹⁸³ *See STATUS OF CONVENTIONS: RATIFICATIONS BY STATE*, INTERNATIONAL MARITIME ORGANIZATION (Mar. 22, 2023), <https://wwwcdn.imo.org/localresources/en/About/Conventions/StatusOfConventions/x-Status.pdf>.

¹⁸⁴ *OVERVIEW OF INTERNATIONAL OFFSHORE DECOMMISSIONING REGULATIONS 198*, INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (July 2017), <https://www.iogp.org/bookstore/product/overview-of-international-offshore-decommissioning-regulations-volume-1-facilities/>.

¹⁸⁵ Rui Mayer, Bruno Neves de Sousa, & João Olivera, *Angola*, in *OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE* 225, 227 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

¹⁸⁶ *OVERVIEW OF INTERNATIONAL OFFSHORE DECOMMISSIONING REGULATIONS 103–04*, INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (July 2017), <https://www.iogp.org/bookstore/product/overview-of-international-offshore-decommissioning-regulations-volume-1-facilities/>.

¹⁸⁷ *Angola—Country Commercial Guide*, U.S. INTERNATIONAL TRADE ADMINISTRATION (Aug. 5, 2022), <https://www.trade.gov/country-commercial-guides/angola-oil-and-gas>.

upstream concessions, auctions, and production contracts, while “Sonangol began restructuring to focus on its core upstream, midstream and downstream businesses as operator.”¹⁸⁸

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.”¹⁸⁹ While some regulations govern the timing and scope of decommissioning planning,¹⁹⁰ historically decommissioning liability has been primarily assigned through negotiated contracts between the national concessionaire and its associates.¹⁹¹

The modern abandonment and decommissioning of both onshore and offshore wells is governed by a 2018 regulation, Presidential Decree 91/18.¹⁹² 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.”¹⁹³ Article 75 of the Petroleum Activities Law places the responsibility for decommissioning jointly on the national concessionaire and its associates,¹⁹⁴ but provides little further detail. Under PSAs, rights in offshore oil infrastructure return to the concessionaire at the termination of the agreement, and

¹⁸⁸ *Id.*

¹⁸⁹ Rui Mayer, Bruno Neves de Sousa, & João Olivera, *Angola*, in *OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE* 225, 226–28 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

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.

¹⁹² Claudia Santos Cruz & Bruno Xavier de Pina, *Oil and Gas Regulation: Angola 2023*, ICLG (Feb. 22, 2023), <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/angola>.

¹⁹³ Ricardo Silva, *When the Time Comes: Brief Considerations on the New Angolan Abandonment and Decommissioning Framework*, PETROLEUM AFRICA (July/August 2019), <https://www.petroleumafrica.com/wp-content/uploads/2019/09/New-Angola-Abandonment-and-Decommissioning-Framework.pdf>.

¹⁹⁴ Rui Mayer, Bruno Neves de Sousa, & João Olivera, *Angola*, in *OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE* 225, 228–29 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

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.

¹⁹⁶ OVERVIEW OF INTERNATIONAL OFFSHORE DECOMMISSIONING REGULATIONS 105, INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (July 2017), <https://www.iogp.org/bookstore/product/overview-of-international-offshore-decommissioning-regulations-volume-1-facilities/>.

¹⁹⁷ Rui Mayer, Bruno Neves de Sousa, & João Olivera, *Angola*, in OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE 225, 230 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

¹⁹⁸ *Id.* at 234–35.

¹⁹⁹ See Kirsten Bindermann, *Production-Sharing Agreements: An Economic Analysis*, OXFORD INSTITUTE FOR ENERGY STUDIES (Oct. 1999), <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2010/11/WPM25-ProductionSharingAgreementsAnEconomicAnalysis-KBindemann-1999.pdf> (defining common terms in PSAs).

²⁰⁰ Ricardo Silva, *When the Time Comes: Brief Considerations on the New Angolan Abandonment and Decommissioning Framework*, PETROLEUM AFRICA (July/August 2019), <https://www.petroleumafrica.com/wp-content/uploads/2019/09/New-Angola-Abandonment-and-Decommissioning-Framework.pdf>.

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

²⁰¹ *Id.*

²⁰² Rui Mayer, Bruno Neves de Sousa, & João Olivera, *Angola*, in *OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE* 225, 231 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

²⁰³ *New Rules on Abandonment of Wells and Decommissioning of Petroleum Facilities*, CLARENCE ABOGADOS & ASOCIADOS, (n.d.), <https://clarenceabogados.com/client-alert/new-rules-on-abandonment-and-decommissioning/>.

²⁰⁴ Rui Mayer, Bruno Neves de Sousa, & João Olivera, *Angola*, in *OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE* 225, 235 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

²⁰⁵ Eduardo Vera-Cruz Advogados, *Key Legislation and Regulatory Structure in the Angolan Oil and Gas Sector*, H.G. LEGAL RESOURCES (n.d.), <https://www.hg.org/legal-articles/key-legislation-and-regulatory-structure-in-the-angolan-oil-and-gas-sector-30556>.

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

Presidential Decree 91/2018 established a new funding structure for decommissioning obligations in Angola.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.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.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.”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

²⁰⁶ Rui Mayer, Bruno Neves de Sousa, & João Olivera, *Angola*, in *OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE* 225, 235 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

²⁰⁷ *Id.*

²⁰⁸ *Id.*

²⁰⁹ *Id.* at 236.

²¹⁰ Claudia Santos Cruz & Bruno Xavier de Pina, *Oil and Gas Regulation: Angola 2023*, ICLG (Feb. 22, 2023), <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/angola>.

²¹¹ *Id.*

²¹² Ricardo Silva, *When the Time Comes: Brief Considerations on the New Angolan Abandonment and Decommissioning Framework*, *PETROLEUM AFRICA* (July/August 2019), <https://www.petroleumafrica.com/wp-content/uploads/2019/09/New-Angola-Abandonment-and-Decommissioning-Framework.pdf>.

²¹³ *New Rules on Abandonment of Wells and Decommissioning of Petroleum Facilities*, CLARENCE ABOGADOS & ASOCIADOS, (n.d.), <https://clarenceabogados.com/client-alert/new-rules-on-abandonment-and-decommissioning/>.

existing contracts.²¹⁴ 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.²¹⁵

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."²¹⁶

7.4 Decommissioning Provisions in Angolan Contracts²¹⁷

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.²¹⁸

²¹⁴ Ricardo Silva, *When the Time Comes: Brief Considerations on the New Angolan Abandonment and Decommissioning Framework*, PETROLEUM AFRICA (July/August 2019), <https://www.petroleumafrica.com/wp-content/uploads/2019/09/New-Angola-Abandonment-and-Decommissioning-Framework.pdf>.

²¹⁵ *New Rules on Abandonment of Wells and Decommissioning of Petroleum Facilities*, CLARENCE ABOGADOS & ASOCIADOS, (n.d.), <https://clarenceabogados.com/client-alert/new-rules-on-abandonment-and-decommissioning/>.

²¹⁶ OVERVIEW OF INTERNATIONAL OFFSHORE DECOMMISSIONING REGULATIONS 104, INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (July 2017), <https://www.iogp.org/bookstore/product/overview-of-international-offshore-decommissioning-regulations-volume-1-facilities/>.

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.

²¹⁸ 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 28, <https://resourcecontracts.org/contract/ocds-591adf-3664745125/view#/pdf>;

Sociedade Nacional de Combustíveis de Angola - Empresa Pública (Sonangol, E.P.), CIE Angola Block 21 Ltd., Sonangol Pesquisa e Produção S.A., Nazaki Oil and Gás S.A., Alper Oil Lda, Service Contract, 2010, Article 27, <https://resourcecontracts.org/contract/ocds-591adf-0839745741/view#/pdf>.

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.²¹⁹ 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.²²⁰

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.²²¹

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

²¹⁹ Sociedade Nacional de Combustíveis de Angola - Empresa Pública (Sonangol, E.P.), CIE Angola Block 20 Ltd., Sonangol Pesquisa E Produção S.A., BP Exploration Angola (Kwanza Benguela) Limited, China Sonangol International Holding Limited, Production Sharing Agreement, 2012, Article 28.1, <https://resourcecontracts.org/contract/ocds-591adf-0014595575/view#/pdf>.

²²⁰ Sociedade Nacional de Combustíveis de Angola - Empresa Pública (Sonangol, E.P.), CIE Angola Block 20 Ltd., Sonangol Pesquisa E Produção S.A., BP Exploration Angola (Kwanza Benguela) Limited, China Sonangol International Holding Limited, Production Sharing Agreement, 2012, Article 28.2, , <https://resourcecontracts.org/contract/ocds-591adf-0014595575/view#/pdf>.

²²¹ 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 28, <https://resourcecontracts.org/contract/ocds-591adf-3664745125/view#/pdf>;

Sociedade Nacional de Combustíveis de Angola - Empresa Pública (Sonangol, E.P.), CIE Angola Block 20 Ltd., Sonangol Pesquisa E Produção S.A., BP Exploration Angola (Kwanza Benguela) Limited, China Sonangol International Holding Limited, Production Sharing Agreement, 2012, Article 28, <https://resourcecontracts.org/contract/ocds-591adf-0014595575/view#/pdf>.

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].”²²²

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.²²³ The 2012 contract further requires the private company to establish a decommissioning or abandonment fund, and sets out rules governing contributions to that fund.²²⁴ 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.²²⁵

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.”²²⁶

²²² Sociedade Nacional de Combustíveis de Angola - Empresa Pública (Sonangol, E.P.), CIE Angola Block 21 Ltd., Sonangol Pesquisa e Produção S.A., Nazaki Oil and Gás S.A., Alper Oil Lda, Service Contract, 2010, Article 27.1, <https://resourcecontracts.org/contract/ocds-591adf-0839745741/view#/pdf>.

²²³ See Sociedade Nacional de Combustíveis de Angola - Empresa Pública (Sonangol, E.P.), CIE Angola Block 20 Ltd., Sonangol Pesquisa E Produção S.A., BP Exploration Angola (Kwanza Benguela) Limited, China Sonangol International Holding Limited, Production Sharing Agreement, 2012, Article 28, <https://resourcecontracts.org/contract/ocds-591adf-0014595575/view#/pdf>.

²²⁴ See *id.* at Annex 3(e).

²²⁵ *Id.* at Article 28.4; see also 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 28.4, <https://resourcecontracts.org/contract/ocds-591adf-3664745125/view#/pdf> (same).

²²⁶ 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 28, <https://resourcecontracts.org/contract/ocds-591adf-3664745125/view#/pdf>;

Sociedade Nacional de Combustíveis de Angola - Empresa Pública (Sonangol, E.P.), CIE Angola Block 20 Ltd., Sonangol Pesquisa E Produção S.A., BP Exploration Angola (Kwanza Benguela) Limited, China Sonangol International Holding Limited, Production Sharing Agreement, 2012, Article 28, <https://resourcecontracts.org/contract/ocds-591adf-0014595575/view#/pdf>.

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.”²²⁷

²²⁷ Sociedade Nacional de Combustíveis de Angola - Empresa Pública (Sonangol, E.P.), CIE Angola Block 20 Ltd., Sonangol Pesquisa E Produção S.A., BP Exploration Angola (Kwanza Benguela) Limited, China Sonangol International Holding Limited, Production Sharing Agreement, 2012, Article 37, <https://resourcecontracts.org/contract/ocds-591adf-0014595575/view#/pdf>; see also 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, <https://resourcecontracts.org/contract/ocds-591adf-3664745125/view#/pdf> (same); Sociedade Nacional de Combustíveis de Angola - Empresa Pública (Sonangol, E.P.), CIE Angola Block 21 Ltd., Sonangol Pesquisa e Produção S.A., Nazaki Oil and Gáz S.A., Alper Oil Lda, Service Contract, 2010, Article 36, <https://resourcecontracts.org/contract/ocds-591adf-0839745741/view#/pdf> (same).

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 "OPGGGS 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.), https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXI-4&chapter=21&clang=en.

²²⁹ *United Nations Convention on the Law of the Sea*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=en.

²³⁰ *Member States*, INTERNATIONAL MARITIME ORGANIZATION (n.d.), <https://www.imo.org/en/OurWork/ERO/Pages/MemberStates.aspx>.

²³¹ See STATUS OF CONVENTIONS: RATIFICATIONS BY STATE, INTERNATIONAL MARITIME ORGANIZATION (Mar. 22, 2023), <https://www.wcdn.imo.org/localresources/en/About/Conventions/StatusOfConventions/x-Status.pdf>.

²³² Aylin Cunsolo, *Oil and Gas Regulation in Australia: Overview*, THOMSON REUTERS PRACTICAL LAW (Dec. 1, 2020), <https://us.practicallaw.thomsonreuters.com/w-011-0184>.

²³³ *Id.*

²³⁴ Ben Macdonald, Ben Fuller, Christopher Marchesi, & Tom Carberry, *Australia's New Offshore Oil and Gas Decommissioning Framework*, LEXOLOGY (Sept. 6, 2021), <https://www.lexology.com/library/detail.aspx?g=b33779b9-62cc-4053-9fb4-168288e1c8f6>.

Territories.²³⁵ 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

²³⁵ *Joint Authorities*, PRACTICAL LAW ANZ GLOSSARY (n.d.), <https://uk.practicallaw.thomsonreuters.com/w-033-3944>.

²³⁶ *About NOPTA*, NOPTA (n.d.), <https://www.nopta.gov.au/about.html>.

²³⁷ *About Us*, NOPSEMA (Apr. 13, 2022), <https://www.nopsema.gov.au/about>.

²³⁸ *Legislation and Regulation: Our Jurisdiction*, NOPSEMA (Jun. 13, 2021), <https://www.nopsema.gov.au/about/legislation-regulation-and-compliance>.

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

²⁴⁰ GUIDELINE: OFFSHORE PETROLEUM DECOMMISSIONING § 3.15, DEPARTMENT OF INDUSTRY, SCIENCE, ENERGY, & RESOURCES (Mar. 2, 2022), <https://www.nopta.gov.au/documents/guidelines/decommissioning-guideline.pdf>.

²⁴¹ *See generally Offshore Petroleum and Greenhouse Gas Storage Act 2006* S 572 (Austl.).

²⁴² 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).

Following the 2021 amendments to the OPGGS Act, the responsible Commonwealth Minister and NOPSEMA were granted “the power to issue remedial directions.”²⁴³ These allow NOPSEMA to compel a person to conduct remedial work to meet their obligations under the OPGGS Act, including decommissioning obligations.²⁴⁴ 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.²⁴⁵ This extension of liability to former owners is referred to as “trailing liability.”²⁴⁶ 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.”²⁴⁷ 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 intend to immediately mirror OPGGSA’s trailing liability

²⁴³ GUIDELINE: OFFSHORE PETROLEUM DECOMMISSIONING § 6.3, DEPARTMENT OF INDUSTRY, SCIENCE, ENERGY, & RESOURCES (Mar. 2, 2022), <https://www.nopta.gov.au/documents/guidelines/decommissioning-guideline.pdf>.

²⁴⁴ *Id.* at § 6.4.

²⁴⁵ *Id.* at §§ 6.4–5.

²⁴⁶ *Id.* at § 6.5.

²⁴⁷ Alexandra Wawryk, *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).

scheme.²⁴⁸ 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.”²⁴⁹

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.”²⁵⁰ 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.²⁵¹ The theory underlying this policy was that “a titleholder cannot surrender a title until NOPSEMA is assured that . . . the area has been adequately remediated.”²⁵²

Following the 2021 amendments, “trailing liability” standards apply to post-surrender decommissioning expenses, and NOPSEMA can issue a remedial decommissioning direction.²⁵³ 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.²⁵⁴

²⁴⁸ Mark McAleer, Anne Beresford, & Lewis Pope, *WA Regulator Signals Divergence from Federal Approach to Decommissioning Obligations*, ALLENS LINKLATERS (Sept. 27, 2022), <https://www.allens.com.au/insights-news/insights/2022/09/Western-Australia-to-forge-its-own-oil-and-gas-decommissioning-path/>.

²⁴⁹ Trevor Thomas & Thomas Milner, *Country Updates: Australia*, INTERNATIONAL BAR ASSOCIATION (Mar. 2023), <https://www.ibanet.org/clint-march-2023-country-updates>.

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.*

²⁵³ GUIDELINE: OFFSHORE PETROLEUM DECOMMISSIONING §§ 6.8–12, DEPARTMENT OF INDUSTRY, SCIENCE, ENERGY, & RESOURCES (Mar. 2, 2022), <https://www.nopta.gov.au/documents/guidelines/decommissioning-guideline.pdf>.

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.”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.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.²⁵⁷ This assurance must generally be held “in a form acceptable to NOPSEMA.”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.”²⁵⁹ Even the “enhanced decommissioning framework” put in place in 2021 “does not require security” for decommissioning obligations.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 Alexandra Wawryk, *Australia, in* THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 251, 262 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

²⁵⁹ *Id.*

²⁶⁰ AUSTRALIA’S OIL AND GAS RESERVES: DECOMMISSIONING OIL AND GAS INFRASTRUCTURE § 5.52, SENATE STANDING COMMITTEES ON ECONOMICS (Feb. 2022), https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Economics/Australiasoilandgas/Report/section?id=committees%2Freportsen%2F024380%2F78882.

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

²⁶¹ Ben Macdonald, Ben Fuller, Christopher Marchesi, & Tom Carberry, *Australia’s New Offshore Oil and Gas Decommissioning Framework*, LEXOLOGY (Sept. 6, 2021), <https://www.lexology.com/library/detail.aspx?g=b33779b9-62cc-4053-9fb4-168288e1c8f6>.

²⁶² EXPOSURE DRAFT: OFFSHORE PETROLEUM AND GREENHOUSE GAS STORAGE (ENVIRONMENT) REGULATIONS 2022 § 16, AUSTRALIAN DEPARTMENT OF INDUSTRY, SCIENCE, & RESOURCES (Dec. 7, 2021), <https://consult.industry.gov.au/environment-regulations-remake-exposure-draft>.

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).

²⁶⁴ *PRRT Deductible Expenditure*, AUSTRALIAN TAXATION OFFICE (Dec. 6, 2022), <https://www.ato.gov.au/business/petroleum-resource-rent-tax/in-detail/what-you-need-to-know/work-out-prrt/prrt-deductible-expenditure/>.

²⁶⁵ Peter Rose, Nicholas Antonas, Alexandra Neovius, & Tom Barrett, *Australia’s Revamped Offshore Oil & Gas Laws Go Live*, JOHNSON WINTER SLATTERY (Mar. 2022), <https://jws.com.au/en/insights/articles/2022-articles/australia%E2%80%99s-revamped-offshore-oil-gas-laws-go-live>.

²⁶⁶ Mike Foley & Nick Toscano, *Woodside Hits Out at Rig Clean-Up Levy as Industry Rift with Government Widens*, SYDNEY MORNING HERALD (July 18, 2021), <https://www.smh.com.au/politics/federal/woodside-hits-out-at-rig-clean-up-levy-as-industry-rift-with-government-widens-20210715-p58a20.html>.

8.4 Decommissioning Provisions in Australian Contracts²⁶⁷

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.”²⁶⁸

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.²⁶⁹ This obligation is broad, and applies to infrastructure in sections of a contracted area that have been relinquished by the contractor.²⁷⁰ 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.²⁷¹

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.

²⁶⁸ Woodside Petroleum (Timor Sea 1) Pty Ltd., INPEX Timor Sea Ltd., Talisman Resources (JPDA 03-01) Pty Ltd., Production Sharing Agreement, 2006, Article 1.1(b), <https://resourcecontracts.org/contract/ocds-591adf-7534708827/view#/pdf>.

²⁶⁹ Woodside Petroleum (Timor Sea 1) Pty Ltd., INPEX Timor Sea Ltd., Talisman Resources (JPDA 03-01) Pty Ltd., Production Sharing Agreement, 2006, Article 5.1(b)(iv), <https://resourcecontracts.org/contract/ocds-591adf-7534708827/view#/pdf>;

Eni JPDA 11-106 B.V., INPEX Offshore Timor-Leste Ltd., Timor Gap PSC 11-106, Unipessoal Limitada, Production Sharing Agreement, 2013, Article 5.1(b)(iv), <https://resourcecontracts.org/contract/ocds-591adf-5301138756/view#/pdf>.

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

²⁷² Eni JPDA 11-106 B.V., INPEX Offshore Timor-Leste Ltd., Timor Gap PSC 11-106, Unipessoal Limitada, Production Sharing Agreement, 2013, Articles 4.9 (a), 4.9 (d) v, and 4.12, <https://resourcecontracts.org/contract/ocds-591adf-5301138756/view#/pdf>;

Oilex (JPDA 06-103) Ltd., Global Energy Inc., Bharat PetroResources JPDA Limited, GSPC (JPDA), JPDA 06-103 Contract Area, Production Sharing Agreement, 2006, Articles 4.11(a), 4.11 (d)(v), and 4.14, <https://resourcecontracts.org/contract/ocds-591adf-9499174502/view#/pdf>.

²⁷³ Eni JPDA 11-106 B.V., INPEX Offshore Timor-Leste, Ltd., Timor Gap PSC 11-106, Unipessoal Limitada, Production Sharing Agreement, 2013, Articles 1, <https://resourcecontracts.org/contract/ocds-591adf-5301138756/view#/pdf>.

²⁷⁴ Woodside Petroleum (Timor Sea 1) Pty Ltd., INPEX Timor Sea Ltd., Talisman Resources (JPDA 03-01) Pty Ltd., Production Sharing Agreement, 2006, Article 5.1 b (iv), <https://resourcecontracts.org/contract/ocds-591adf-7534708827/view#/pdf>.

contract.²⁷⁵ 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."²⁷⁶ 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.²⁷⁷

²⁷⁵ Eni JPDA 11-106 B.V., INPEX Offshore Timor-Leste Ltd., Timor Gap PSC 11-106, Unipessoal Limitada, Production Sharing Agreement, 2013, Articles 4.12 and 4.13, <https://resourcecontracts.org/contract/ocds-591adf-5301138756/view#/pdf>;

Oilex (JPDA 06-103) Ltd., Global Energy Inc., Bharat PetroResources JPDA Limited, GSPC (JPDA), JPDA 06-103 Contract Area, Production Sharing Agreement, 2006, Articles 4.14 and 4.15, <https://resourcecontracts.org/contract/ocds-591adf-9499174502/view#/pdf>.

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>;

²⁷⁷ ConocoPhillips (91-12) Pty Ltd., Santos (JPDA 91-12) Pty Ltd., Inpex Sahul Ltd., ConocoPhillips (Timor Sea) Pty Ltd., ConocoPhillips (Emet) Pty Ltd., Amendment of Production Sharing Agreement, 2003, Article 2.5, <https://resourcecontracts.org/contract/ocds-591adf-6888313191/view#/pdf>.

9. APPENDIX 3: BRAZIL

9.1 Sources of Law

9.1.1 International Law

Brazil is a party to UNCLOS,²⁷⁸ a member of the IMO,²⁷⁹ and a party to the London Convention (but not the 1996 protocol).²⁸⁰

9.1.2 National Law

Brazil's constitution reserves ownership of oil and gas (along with other minerals) for the federal government.²⁸¹ Until 1995, Brazil's upstream oil exploration and production was "carried out exclusively by *Petróleo Brasileiro S.A.*" ("*Petrobras*"),²⁸² a publicly traded Brazilian oil company in which the Brazilian federal government maintains a majority interest.²⁸³ 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.²⁸⁴

The Petroleum Law (Federal Law No. 9,478/1997) introduced Brazil's concession regime and established the initial contours of concessionaire decommissioning liability.²⁸⁵ Two 2010 laws, the

²⁷⁸ *United Nations Convention on the Law of the Sea*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=en.

²⁷⁹ *Member States*, INTERNATIONAL MARITIME ORGANIZATION (n.d.), <https://www.imo.org/en/OurWork/ERO/Pages/MemberStates.aspx>.

²⁸⁰ *See STATUS OF CONVENTIONS: RATIFICATIONS BY STATE*, INTERNATIONAL MARITIME ORGANIZATION (Mar. 22, 2023), <https://www.wcdn.imo.org/localresources/en/About/Conventions/StatusOfConventions/x-Status.pdf>.

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).

²⁸² *OVERVIEW OF INTERNATIONAL OFFSHORE DECOMMISSIONING REGULATIONS 198*, INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (July 2017), <https://www.iogp.org/bookstore/product/overview-of-international-offshore-decommissioning-regulations-volume-1-facilities/>.

²⁸³ *Shareholding Structure*, PETROBRAS (Mar. 2023), <https://www.investidorpetrobras.com.br/en/overview/shareholding-structure/>.

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).

²⁸⁵ 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 277–78* (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

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.²⁸⁶ A separate legal mechanism exists to assign exclusive exploration rights to Petrobras.²⁸⁷

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.”²⁸⁸ “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.”²⁸⁹

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.²⁹⁰ Once a decommissioning plan is approved by the ANP, the concessionaire is bound by the decommissioning obligations and liabilities set out in the plan.²⁹¹ 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.²⁹²

²⁸⁶ *Id.* at 278.

²⁸⁷ OVERVIEW OF INTERNATIONAL OFFSHORE DECOMMISSIONING REGULATIONS 198, INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (July 2017), <https://www.iogp.org/bookstore/product/overview-of-international-offshore-decommissioning-regulations-volume-1-facilities/>.

²⁸⁸ 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 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

²⁸⁹ OVERVIEW OF INTERNATIONAL OFFSHORE DECOMMISSIONING REGULATIONS 198, INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (July 2017), <https://www.iogp.org/bookstore/product/overview-of-international-offshore-decommissioning-regulations-volume-1-facilities/>.

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-8462-3dbbb6ad9ee9/>.

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.²⁹³ Post-transfer the assignor and assignee become jointly and severally liable “for decommissioning obligations and costs.”²⁹⁴ 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.”²⁹⁵

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.”²⁹⁶ This transfer law has never been used, and it is unclear if operators would remain responsible for future decommissioning liability after such a transfer.²⁹⁷

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.”²⁹⁸ This is a strict liability regime,²⁹⁹ 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.”³⁰⁰ “Direct” responsibility attaches to the party who actually conducts the damaging activity, and Brazilian

²⁹³ Bruno Belchior & Bárbara Leite, *Abandonment and Decommissioning*, BRAZIL ENERGY J. 3 (May 2022), <https://www.mayerbrown.com/-/media/files/perspectives-events/publications/2022/05/brazil-energy-journal--may--abandonment-and-decommissioning.pdf>.

²⁹⁴ 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, 284 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

²⁹⁵ *Id.*

²⁹⁶ *Id.* at 285.

²⁹⁷ *Id.* at 285–86.

²⁹⁸ Paulo Valois Pires, *Oil and Gas Regulation in Brazil: Overview*, THOMSON REUTERS PRACTICAL LAW (Oct. 1, 2020), <https://us.practicallaw.thomsonreuters.com/2-524-2451>.

²⁹⁹ *Id.*

³⁰⁰ 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, 285 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

courts have increasingly treated all economic beneficiaries of a harmful activity as “indirectly responsible” for the related harms.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.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.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.³⁰⁴ These instruments are subject to minimum durations and risk rating grades.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.”³⁰⁶

³⁰¹ *Id.* at 285.

³⁰² Luciana Braga & Helder Pinto Jr., *The Financial Aspects of Offshore Decommissioning and Brazilian Regulatory System in the Light of the Transnational Legal Order* 423, 443, 15 J. WORLD ENERGY L. & BUS. (Sept. 5, 2022).

³⁰³ ANP Establishes Criteria and Procedures for the Presentation of Financial Guarantees for Decommissioning, BRAZIL ENERGY INSIGHT (Sept. 29, 2021), <https://brazilenergyinsight.com/2021/09/30/anp-establishes-criteria-and-procedures-for-the-presentation-of-financial-guarantees-for-decommissioning/>.

³⁰⁴ Bruno Belchior & Bárbara Leite, *Abandonment and Decommissioning*, BRAZIL ENERGY J. 8 (May 2022), <https://www.mayerbrown.com/-/media/files/perspectives-events/publications/2022/05/brazil-energy-journal--may--abandonment-and-decommissioning.pdf>.

³⁰⁵ *Id.*

³⁰⁶ Luciana Braga & Helder Pinto Jr., *The Financial Aspects of Offshore Decommissioning and Brazilian Regulatory System in the Light of the Transnational Legal Order* 423, 427, 15 J. WORLD ENERGY L. & BUS. (Sept. 5, 2022).

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

³⁰⁷ Bruno Belchior & Bárbara Leite, *Abandonment and Decommissioning*, BRAZIL ENERGY J. 7 (May 2022), <https://www.mayerbrown.com/-/media/files/perspectives-events/publications/2022/05/brazil-energy-journal--may--abandonment-and-decommissioning.pdf>.

³⁰⁸ *Id.* at 9.

³⁰⁹ *Id.*

³¹⁰ Luciana Braga & Helder Pinto Jr., *The Financial Aspects of Offshore Decommissioning and Brazilian Regulatory System in the Light of the Transnational Legal Order* 423, 444, 15 J. WORLD ENERGY L. & BUS. (Sept. 5, 2022).

³¹¹ *Id.*

³¹²

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 Contracts³¹⁷

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.

³¹⁸ Agência Nacional Do Petróleo, Gás Natural E Biocombustíveis - ANP, Concession Model Contract, 2018, <https://resourcecontracts.org/contract/ocds-591adf-1309539708/view#/pdf>.

³¹⁹ Petróleo Brasileiro S.A. Petrobras, Presal Petróleo 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, Art. 1.3.45, <https://resourcecontracts.org/contract/ocds-591adf-2617767522/view#/pdf>.

(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.³²⁰

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.³²¹

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.”³²²

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

³²⁰ Petróleo Brasileiro S.A. Petrobras, Presal Petróleo 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>.

³²¹ Agência Nacional Do Petróleo, Gás Natural E Biocombustíveis - ANP, Concession Model Contract, 2018, <https://resourcecontracts.org/contract/ocds-591adf-1309539708/view#/pdf>.

³²² Federal Government of Brazil, Petróleo Brasileiro S.A. Petrobras, Concession, 2010, Article 25.2, <https://resourcecontracts.org/contract/ocds-591adf-9691553720/view#/pdf>.

will be periodically reviewed during the Production Phase.”³²³ These contracts treat decommissioning expenditures as cost recoverable.³²⁴

³²³ Federal Government of Brazil, *Petróleo Brasileiro S.A. Petrobras, Concession*, 2010, Article 14.9, <https://resourcecontracts.org/contract/ocds-591adf-9691553720/view#/pdf>.

³²⁴ *Petróleo 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, Annex VII, Articles 3.6, <https://resourcecontracts.org/contract/ocds-591adf-2617767522/view#/pdf>.

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

³²⁵ *Convention on the Continental Shelf*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXI-4&chapter=21&clang=en.

³²⁶ *United Nations Convention on the Law of the Sea*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=en.

³²⁷ *Member States*, INTERNATIONAL MARITIME ORGANIZATION (n.d.), <https://www.imo.org/en/OurWork/ERO/Pages/MemberStates.aspx>.

³²⁸ *ASCOPE Council*, ASEAN COUNCIL ON PETROLEUM (n.d.), <http://www.ascope.org/About/Organization>.

³²⁹ Mirza A Karim & Dioputra Ilham Oepangat, *Oil and Gas Regulation in Indonesia: Overview*, THOMSON REUTERS PRACTICAL LAW (Apr. 1, 2020), <https://us.practicallaw.thomsonreuters.com/w-025-0662>.

³³⁰ Anton Latief, *Indonesia*, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 407, 410 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

³³¹ 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>.

³³² OVERVIEW OF INTERNATIONAL OFFSHORE DECOMMISSIONING REGULATIONS 130, INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (July 2017), <https://www.iogp.org/bookstore/product/overview-of-international-offshore-decommissioning-regulations-volume-1-facilities/>.

regulatory functions from its commercial activities.³³³ Today offshore oil and gas production are supervised by the Special Task Force for Upstream Oil and Gas Business Activities (“SKK Migas”).³³⁴ Both private sector and public sector companies participate in the oil industry through Production Sharing Contracts (“PSCs”) entered into with SKK Migas.³³⁵ Excluding Pertamina, “an entity may only hold an interest in one co-operation contract at any time.”³³⁶ Although “national legislation provides a general legal framework for these activities,” many of the details “are found in the PSCs instead of implementing regulations.”³³⁷

The 2001 Oil and Gas Law “requires every PSC to contain provisions” governing decommissioning obligations.³³⁸ The English-language literature around Indonesian oil and gas decommissioning refers to these obligations as “abandonment and site restoration” (“ASR”) obligations.³³⁹ 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.³⁴⁰

³³³ *Id.*

³³⁴ 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>.

³³⁵ *Id.*

³³⁶ 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>.

³³⁷ 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).

³³⁸ *Id.* at 411.

³³⁹ 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>.

³⁴⁰ *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

³⁴¹ Anton Latief, *Indonesia*, in *THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES* 407, 410 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

³⁴² *Id.* at 410–11.

³⁴³ *Id.*

³⁴⁴ 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>.

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.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.”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.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.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.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.”³⁵³ Prior to 2018, SKK Migas guidelines allowed withdrawals from the ASR fund only “following approval

³⁴⁸ 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).

³⁴⁹ *Id.*

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.

³⁵¹ 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>.

³⁵² Anton Latief, *Indonesia*, in *THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES* 407, 413, 421–22 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

³⁵³ Gabriel Procaccini, Paul Greening, & Eduardo Canales, *The Coming Decommissioning Wave in Southeast Asia: What to Expect and the Relevance of Experiences in the North Sea and U.S. Gulf of Mexico*, AKIN GUMP (Apr. 2, 2020), <https://www.akingump.com/en/insights/blogs/speaking-energy/the-coming-decommissioning-wave-in-southeast-asia-what-to-expect-and-the-relevance-of-experiences-in-the-north-sea-and-us-gulf-of-mexico>.

of ASR completion.”³⁵⁴ 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.³⁵⁵

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.³⁵⁶ 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.”³⁵⁷ 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.³⁵⁸

10.3.2 Guarantee, Bonding, and Security Arrangements

Indonesia’s laws and regulations do not require specific guarantees or bonding for decommissioning obligations.³⁵⁹ Instead, the primary security mechanism is the ASR fund, which is subject to certain controls (see “Decommissioning Funding Structures” above).³⁶⁰

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

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.*

³⁵⁶ Gabriel Procaccini, Paul Greening, & Eduardo Canales, *The Coming Decommissioning Wave in Southeast Asia: What to Expect and the Relevance of Experiences in the North Sea and U.S. Gulf of Mexico*, AKIN GUMP (Apr. 2, 2020), <https://www.akingump.com/en/insights/blogs/speaking-energy/the-coming-decommissioning-wave-in-southeast-asia-what-to-expect-and-the-relevance-of-experiences-in-the-north-sea-and-us-gulf-of-mexico>.

³⁵⁷ *Id.*

³⁵⁸ 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>.

³⁵⁹ However, contractors must provide “performance bonds” to secure their general obligations under a PSC. See 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>.

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.”³⁶¹ 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.”³⁶²

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,”³⁶³ along with other operating costs. Net annual losses from operating cost deductions can be carried forward “for the next ten consecutive years.”³⁶⁴ 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.”³⁶⁵

10.4 Decommissioning Provisions in Indonesian Contracts³⁶⁶

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

³⁶¹ 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>.

³⁶² *Id.*

³⁶³ Gabriel Procaccini, Paul Greening, & Eduardo Canales, *The Coming Decommissioning Wave in Southeast Asia: What to Expect and the Relevance of Experiences in the North Sea and U.S. Gulf of Mexico*, AKIN GUMP (Apr. 2, 2020), <https://www.akingump.com/en/insights/blogs/speaking-energy/the-coming-decommissioning-wave-in-southeast-asia-what-to-expect-and-the-relevance-of-experiences-in-the-north-sea-and-us-gulf-of-mexico>.

³⁶⁴ 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>.

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.”³⁶⁷

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.³⁶⁸ 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.³⁶⁹

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.³⁷⁰ These contracts do not outline the scope of these decommissioning obligations, but simply reference an “approved plan of development.”³⁷¹

³⁶⁷ Perusahaan Pertambangan Minyak Dan Gas Bumi Negara and APEX (Yapen) Ltd., Production Sharing Agreement, 1999, Article 5.2.5(c), <https://resourcecontracts.org/contract/ocds-591adf-2985497670/view#/pdf>; Model Contract, Badan Pelaksana Kegiatan Usaha Hulu Minyak Dan Gas Bumi, Production Sharing Agreement, 2013, Article 5.2.5(c), <https://resourcecontracts.org/contract/ocds-591adf-4388317328/view#/pdf>.

³⁶⁸ Perusahaan Pertambangan Minyak Dan Gas Bumi Negara and APEX (Yapen) Ltd., Production Sharing Agreement, 1999, Article 5.2.5 (c), <https://resourcecontracts.org/contract/ocds-591adf-2985497670/view#/pdf>; Model Contract, Badan Pelaksana Kegiatan Usaha Hulu Minyak Dan Gas Bumi, Production Sharing Agreement, 2013, Article 5.2.5 (c), <https://resourcecontracts.org/contract/ocds-591adf-4388317328/view#/pdf>.

³⁶⁹ Perusahaan Pertambangan Minyak Dan Gas Bumi Negara and APEX (Yapen) Ltd., Production Sharing Agreement, 1999, Article 5.2.5 (c), <https://resourcecontracts.org/contract/ocds-591adf-2985497670/view#/pdf>; Model Contract, Badan Pelaksana Kegiatan Usaha Hulu Minyak Dan Gas Bumi, Production Sharing Agreement, 2013, Article 5.2.5 (c), <https://resourcecontracts.org/contract/ocds-591adf-4388317328/view#/pdf>.

³⁷⁰ Perusahaan Pertambangan Minyak Dan Gas Bumi Negara and APEX (Yapen) Ltd., Production Sharing Agreement, 1999, Article 5.2.5 (e), <https://resourcecontracts.org/contract/ocds-591adf-2985497670/view#/pdf>; Model Contract, Badan Pelaksana Kegiatan Usaha Hulu Minyak Dan Gas Bumi, Production Sharing Agreement, 2013, Article 5.2.5 (e) <https://resourcecontracts.org/contract/ocds-591adf-4388317328/view#/pdf>.

³⁷¹ Perusahaan Pertambangan Minyak Dan Gas Bumi Negara and APEX (Yapen) Ltd., Production Sharing Agreement, 1999, Exhibit C Article 3.7, <https://resourcecontracts.org/contract/ocds-591adf-2985497670/view#/pdf>; Model Contract, Badan Pelaksana Kegiatan Usaha Hulu Minyak Dan Gas Bumi, Production Sharing Agreement, 2013, Exhibit C Article 3.7, <https://resourcecontracts.org/contract/ocds-591adf-4388317328/view#/pdf>.

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 fulfil 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."³⁷²

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.³⁷³ 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 to be treated as annually recoverable Operating Costs, prorated across the "total estimated number of years in the economic life of each discovery."³⁷⁴

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."³⁷⁵

³⁷² Perusahaan Pertambangan Minyak Dan Gas Bumi Negara and APEX (Yapen) Ltd., Production Sharing Agreement, 1999, Article 5.2.5(c), <https://resourcecontracts.org/contract/ocds-591adf-2985497670/view#/pdf>; Model Contract, Badan Pelaksana Kegiatan Usaha Hulu Minyak Dan Gas Bumi, Production Sharing Agreement, 2013, Article 5.2.5(c), <https://resourcecontracts.org/contract/ocds-591adf-4388317328/view#/pdf>.

³⁷³ Perusahaan Pertambangan Minyak Dan Gas Bumi Negara and APEX (Yapen) Ltd., Production Sharing Agreement, 1999, Article 5.2.5 (e), <https://resourcecontracts.org/contract/ocds-591adf-2985497670/view#/pdf>; Model Contract, Badan Pelaksana Kegiatan Usaha Hulu Minyak Dan Gas Bumi, Production Sharing Agreement, 2013, Article 5.2.5 (e) <https://resourcecontracts.org/contract/ocds-591adf-4388317328/view#/pdf>.

³⁷⁴ Perusahaan Pertambangan Minyak Dan Gas Bumi Negara and APEX (Yapen) Ltd., Production Sharing Agreement, 1999, Article 5.2.5(d) and Exhibit C Article 3.7, <https://resourcecontracts.org/contract/ocds-591adf-2985497670/view#/pdf>; Model Contract, Badan Pelaksana Kegiatan Usaha Hulu Minyak Dan Gas Bumi, Production Sharing Agreement, 2013, Article 5.2.5(d) and Exhibit C Article 3.7, <https://resourcecontracts.org/contract/ocds-591adf-4388317328/view#/pdf>.

³⁷⁵ Model Contract, Badan Pelaksana Kegiatan Usaha Hulu Minyak Dan Gas Bumi, Production Sharing Agreement, 2013, Article 16.4, <https://resourcecontracts.org/contract/ocds-591adf-4388317328/view#/pdf>.

11. APPENDIX 5: MALAYSIA

11.1 Sources of Law

11.1.1 Major International Conventions

Malaysia is a party to the Geneva Convention,³⁷⁶ a party to UNCLOS,³⁷⁷ and a member of the IMO.³⁷⁸ Malaysia is also a member of ASCOPE.³⁷⁹

11.1.2 National Law

Malaysia's 1974 constitution vests the federal government with ownership of and jurisdiction over all oil and gas resources.³⁸⁰ These rights were allocated to Malaysia's national petroleum company, Petroliaam 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.³⁸¹ The act also authorizes PETRONAS to issue upstream development licenses to private contractors.³⁸²

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.³⁸³ "There is no specific legislation or framework relating to the abandonment

³⁷⁶ *Convention on the Continental Shelf*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXI-4&chapter=21&clang=en.

³⁷⁷ *United Nations Convention on the Law of the Sea*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=en.

³⁷⁸ *Member States*, INTERNATIONAL MARITIME ORGANIZATION (n.d.), <https://www.imo.org/en/OurWork/ERO/Pages/MemberStates.aspx>.

³⁷⁹ *ASCOPE Council*, ASEAN COUNCIL ON PETROLEUM (n.d.), <http://www.ascope.org/About/Organization>.

³⁸⁰ OVERVIEW OF INTERNATIONAL OFFSHORE DECOMMISSIONING REGULATIONS 133, INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (July 2017), <https://www.iogp.org/bookstore/product/overview-of-international-offshore-decommissioning-regulations-volume-1-facilities/>.

³⁸¹ *Petroleum Development Act*, INTERNATIONAL ENERGY ASSOCIATION (Dec. 23, 2020), <https://www.iea.org/policies/16100-petroleum-industry-act>.

³⁸² *Id.*

³⁸³ Fariz Abdul Aziz, *Malaysia: The Decommissioning Framework in Malaysia*, MONDAQ (Apr. 7, 2020), <https://www.mondaq.com/oil-gas-electricity/913838/the-decommissioning-framework-in-malaysia>.

or decommissioning of physical structures used in oil and natural gas development.”³⁸⁴ As a result, “a party seeking to undertake a decommissioning project is required to navigate the requirements of various regulators” to obtain approvals.³⁸⁵

Malaysia’s national petroleum company Petroliam Nasional Bhd (“PETRONAS”) “holds exclusive ownership rights to all natural gas exploration and production projects in Malaysia,”³⁸⁶ and “[a]ll exploration, development and production of oil and gas is regulated by PETRONAS” through various contractual structures.³⁸⁷ 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”).³⁸⁸

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.³⁸⁹ 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.³⁹⁰ 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

³⁸⁴ James Monteiro & Vishal Kumar, *Oil and Gas Regulations: Malaysia 2023*, ICLG (Feb. 22, 2023), <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/malaysia>.

³⁸⁵ Fariz Abdul Aziz, *Malaysia: The Decommissioning Framework in Malaysia*, MONDAQ (Apr. 7, 2020), <https://www.mondaq.com/oil-gas-electricity/913838/the-decommissioning-framework-in-malaysia>.

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.

³⁸⁷ OVERVIEW OF INTERNATIONAL OFFSHORE DECOMMISSIONING REGULATIONS 133, INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (July 2017), <https://www.iogp.org/bookstore/product/overview-of-international-offshore-decommissioning-regulations-volume-1-facilities/>.

³⁸⁸ Fariz Abdul Aziz, *Malaysia: The Decommissioning Framework in Malaysia*, MONDAQ (Apr. 7, 2020), <https://www.mondaq.com/oil-gas-electricity/913838/the-decommissioning-framework-in-malaysia>.

³⁸⁹ See generally Wan M. Zulhafiz Wan Zahari & Farid Sufian bin Shuaib, *The Distribution of Petroleum Resources in Malaysia: Unpacking Federalism*, 13 J. WORLD ENERGY L. & BUS. 369 (2020) (discussing the legal background of jurisdictional disputes between Malaysia’s state and federal governments over petrochemicals).

³⁹⁰ COUNTRY ANALYSIS EXECUTIVE SUMMARY: MALAYSIA 2, U.S. ENERGY INFORMATION ADMINISTRATION (Jan. 25, 2021), https://www.eia.gov/international/content/analysis/countries_long/Malaysia/malaysia.pdf.

million payment from PETRONAS³⁹¹ 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.”³⁹² However, jurisdiction over and ownership of petrochemicals remain subject to inter-governmental disputes.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,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.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.³⁹⁶

These contributions are generally cost-recoverable through mechanisms in the PSC.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

³⁹¹ A. Ananthalakshmi, *Petronas Pays \$700M in Tax to Sarawak State after Dispute Settlement*, OFFSHORE ENGINEER (Sept. 18, 2020), <https://www.oedigital.com/news/481793-petronas-pays-700m-in-tax-to-sarawak-state-after-dispute-settlement>.

³⁹² Press Release, State Government of Sarawak & PETRONAS, Joint Statement by State Government of Sarawak and PETRONAS (Dec. 7, 2020), <https://www.petronas.com/media/media-releases/joint-statement-state-government-sarawak-and-petronas>.

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.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).

³⁹⁴ James Monteiro & Vishal Kumar, *Oil and Gas Regulations: Malaysia 2023*, ICLG (Feb. 22, 2023), <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/malaysia>.

³⁹⁵ Fariz Abdul Aziz, *Malaysia: The Decommissioning Framework in Malaysia*, MONDAQ (Apr. 7, 2020), <https://www.mondaq.com/oil-gas-electricity/913838/the-decommissioning-framework-in-malaysia>.

³⁹⁶ Gabriel Procaccini, Paul Greening, & Eduardo Canales, *The Coming Decommissioning Wave in Southeast Asia: What to Expect and the Relevance of Experiences in the North Sea and U.S. Gulf of Mexico*, AKIN GUMP (Apr. 2, 2020), <https://www.akingump.com/en/insights/blogs/speaking-energy/the-coming-decommissioning-wave-in-southeast-asia-what-to-expect-and-the-relevance-of-experiences-in-the-north-sea-and-us-gulf-of-mexico>.

³⁹⁷ *Id.*

PETRONAS instead of the contractor.³⁹⁸ Ultimately, “a large number of decommissioning projects are likely to be the legal responsibility of PETRONAS,” rather than private contractors.³⁹⁹

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.”⁴⁰⁰ Malaysia’s decommissioning regulations have historically neither addressed residual liability or risk management nor required the establishment of a “residual risk fund.”⁴⁰¹ 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.⁴⁰² However, as previously discussed, Malaysian PSCs require operators to make annual contributions to a decommissioning fund that is controlled by PETRONAS.⁴⁰³

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).

³⁹⁹ Fariz Abdul Aziz, *Malaysia: The Decommissioning Framework in Malaysia*, MONDAQ (Apr. 7, 2020), <https://www.mondaq.com/oil-gas-electricity/913838/the-decommissioning-framework-in-malaysia>.

⁴⁰⁰ Akhmal Sidek, Agi Augustine, Radzuan Junin, Mohd-Zaidi Jaafar, *Decommissioning of Offshore Oil and Gas Facilities: A Comparative Study Between Malaysia Practices and International Standards*, SOCIETY OF PETROLEUM ENGINEERS (Aug. 2021), DOI: [10.2118/207178-MS](https://doi.org/10.2118/207178-MS).

⁴⁰¹ See generally *id.*, see also M.L. Fam, D. Konovessis, L.S. Ong, & H.K. Tan, *A Review of Offshore Decommissioning Regulations in Five Countries—Strengths and Weaknesses*, 160 OCEAN ENGINEERING 244, 256 (May 3, 2018) (noting that in Malaysia, “[r]esidual liability remains uncertain”).

⁴⁰² M.L. Fam, D. Konovessis, L.S. Ong, & H.K. Tan, *A Review of Offshore Decommissioning Regulations in Five Countries—Strengths and Weaknesses*, 160 OCEAN ENGINEERING 244, 255 (May 3, 2018).

⁴⁰³ Gabriel Procaccini, Paul Greening, & Eduardo Canales, *The Coming Decommissioning Wave in Southeast Asia: What to Expect and the Relevance of Experiences in the North Sea and U.S. Gulf of Mexico*, AKIN GUMP (Apr. 2, 2020), <https://www.akingump.com/en/insights/blogs/speaking-energy/the-coming-decommissioning-wave-in-southeast-asia-what-to-expect-and-the-relevance-of-experiences-in-the-north-sea-and-us-gulf-of-mexico>.

11.3.2 Guarantee, Bonding, and Security Arrangements

The presence and form of security or guarantee requirements are subject to negotiation with PETRONAS.⁴⁰⁴ However, as previously discussed, PSCs generally require contractors to pre-fund an abandonment fund that is controlled by PETRONAS.⁴⁰⁵

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.⁴⁰⁶

11.4 Decommissioning Provisions in Malaysian Contracts⁴⁰⁷

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,⁴⁰⁸ an intergovernmental body that manages seabed exploration in the “joint development area” of the Gulf of Thailand.⁴⁰⁹ The 1994 PSA does not otherwise address decommissioning obligations.

⁴⁰⁴ James Monteiro & Vishal Kumar, *Oil and Gas Regulations: Malaysia 2023*, ICLG (Feb. 22, 2023), <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/malaysia>.

⁴⁰⁵ Gabriel Procaccini, Paul Greening, & Eduardo Canales, *The Coming Decommissioning Wave in Southeast Asia: What to Expect and the Relevance of Experiences in the North Sea and U.S. Gulf of Mexico*, AKIN GUMP (Apr. 2, 2020), <https://www.akingump.com/en/insights/blogs/speaking-energy/the-coming-decommissioning-wave-in-southeast-asia-what-to-expect-and-the-relevance-of-experiences-in-the-north-sea-and-us-gulf-of-mexico>.

⁴⁰⁶ *Tax incentives for Late-Life Assets (LLA) Production Sharing Contracts*, Ernst & Young (Oct. 3, 2022), https://www.ey.com/en_my/tax-alerts/tax-incentives-for-late-life-assets-lla-production-sharing-contracts.

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.

⁴⁰⁸ Petronas Carigali Sdn. Bhd., Triton Oil Company of Thailand, PSA, 1994, Article 3.10, <https://resourcecontracts.org/contract/ocds-591adf-7842827037/view#/pdf>.

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

⁴¹⁰ Petronas Carigali Sdn. Bhd., Triton Oil Company of Thailand, PSA, 1994, Article 21.3, <https://resourcecontracts.org/contract/ocds-591adf-7842827037/view#/pdf>.

12. APPENDIX 6: MEXICO

12.1 Sources of Law

12.1.1 Major International Conventions

Mexico is a party to the Geneva Convention,⁴¹¹ a party to UNCLOS,⁴¹² a member of the IMO,⁴¹³ and a party to both the London Convention and the 1996 protocol.⁴¹⁴

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.⁴¹⁵

12.1.2 National Law

Under Mexico's constitution, all petroleum in Mexico's territory is the inalienable property of the state.⁴¹⁶ Until 2013, all oil and gas exploration and production was conducted by Mexico's state-owned oil company, *Petróleos Mexicanos* ("PEMEX").⁴¹⁷ 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.⁴¹⁸ These reforms included the 2014 Hydrocarbons Law, which governs exploration and extraction contracts,

⁴¹¹ *Convention on the Continental Shelf*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXI-4&chapter=21&clang=en.

⁴¹² *United Nations Convention on the Law of the Sea*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=en.

⁴¹³ *Member States*, INTERNATIONAL MARITIME ORGANIZATION (n.d.), <https://www.imo.org/en/OurWork/ERO/Pages/MemberStates.aspx>.

⁴¹⁴ See STATUS OF CONVENTIONS: RATIFICATIONS BY STATE, INTERNATIONAL MARITIME ORGANIZATION (Mar. 22, 2023), <https://wwwcdn.imo.org/localresources/en/About/Conventions/StatusOfConventions/x-Status.pdf>.

⁴¹⁵ See *Treaties*, U.S. BUREAU OF OCEAN ENERGY MANAGEMENT (n.d.), <https://www.boem.gov/oil-gas-energy/treaties>.

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.).

⁴¹⁷ Carlos A. Escoto Carranza & Antonio Borja Charles, *Mexico*, in *THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES* 465, 465 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

⁴¹⁸ Gabriel Ruiz Rocha & María Luisa Licón Holguín, *Oil and gas Regulation in Mexico* (Aug. 3, 2017), <https://www.lexology.com/library/detail.aspx?g=c8379080-a1a6-431b-bade-803ae3b4edc6>.

hydrocarbon taxes, and a number of “rights and obligations of oil operators during the entire life cycle of a hydrocarbons production project.”⁴¹⁹

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.”⁴²⁰ 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.”⁴²¹

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.”⁴²² 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.”⁴²³

⁴¹⁹ Carlos A. Escoto Carranza & Antonio Borja Charles, *Mexico*, in *THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES* 465, 465 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

⁴²⁰ *Comisión Nacional de Hidrocarburos*, MEXICO PROJECTS HUB (n.d.), <https://www.proyectosmexico.gob.mx/en/how-mexican-infrastructure/investment-cycle/hydrocarbons/#tab-id-7>

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

⁴²² Gabriel Ruiz Rocha & María Luisa Licón Holguín, *Oil and gas Regulation in Mexico* (Aug. 3, 2017), <https://www.lexology.com/library/detail.aspx?g=c8379080-a1a6-431b-bade-803ae3b4edc6>.

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.”⁴²⁴ 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).”⁴²⁵

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.⁴²⁶ When an oil operator “has met all decommissioning obligations . . . the CNH [will] formally release[] it from its contractual liabilities.”⁴²⁷

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.”⁴²⁸ 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.⁴²⁹ In practice, however, it is unclear how Mexico would

⁴²⁴ Carlos de Maria y Campos, Antonio Borja, Germán Fernández, *Energy: Oil and Gas 2022—Mexico: Law and Practice*, CHAMBERS & PARTNERS (June 21, 2022), <https://practiceguides.chambers.com/practice-guides/energy-oil-gas-2022/mexico/trends-and-developments>.

⁴²⁵ *Id.*

⁴²⁶ Brenda A Rogel Salgado, Jeanett Trad Nacif, Mario Jorge Yanez, & Javier Camacho Piedra, *New ASEA Guidelines for Dismantling Hydrocarbon Sector Activities*, LEXOLOGY (June 15, 2020), <https://www.lexology.com/commentary/environment-climate-change/mexico/hogan-lovels-bstl-sc/new-asea-guidelines-for-dismantling-hydrocarbon-sector-activities>.

⁴²⁷ Carlos A. Escoto Carranza & Antonio Borja Charles, *Mexico*, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 465, 488 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

⁴²⁸ *Id.* at 489.

⁴²⁹ *Id.*, see also Carlos de Maria y Campos, Antonio Borja, Germán Fernández, *Energy: Oil and Gas 2022—Mexico: Law and Practice*, CHAMBERS & PARTNERS (June 21, 2022), <https://practiceguides.chambers.com/practice-guides/energy-oil-gas-2022/mexico/trends-and-developments> (“From a civil perspective, the person responsible for site contamination must repair for the owner all the damage suffered by the property.”).

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.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.”⁴³¹ While the terms of these trusts vary from contract to contract,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.”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.”⁴³⁴ Any funds left over following decommissioning may be returned to the contractor.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

⁴³⁰ Carlos A. Escoto Carranza & Antonio Borja Charles, *Mexico*, in *THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES* 465, 489 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

⁴³¹ *Id.* at 484.

⁴³² *Id.*

⁴³³ Carlos de Maria y Campos, Antonio Borja, Germán Fernández, *Energy: Oil and Gas 2022—Mexico: Law and Practice*, CHAMBERS & PARTNERS (June 21, 2022), <https://practiceguides.chambers.com/practice-guides/energy-oil-gas-2022/mexico/trends-and-developments>.

⁴³⁴ *Id.*

⁴³⁵ Carlos A. Escoto Carranza & Antonio Borja Charles, *Mexico*, in *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,

⁴³⁶ Carlos A. Escoto Carranza & Antonio Borja Charles, *Mexico*, in *THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES* 465, 479 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

⁴³⁷ *Id.* at 488–89.

⁴³⁸ Francisco de Rosenzweig & Gustavo Neyra, *Guidelines Regarding the Financial Mechanisms to Ensure the Dismantling and Abandonment of Activities in the Hydrocarbon Sector*, WHITE & CASE (Feb. 26, 2021), <https://www.whitecase.com/insight-alert/guidelines-regarding-financial-mechanisms-ensure-dismantling-and-abandonment>.

⁴³⁹ Benjamin Torres Barron & Carlos Maass-Porras, *Mexico: The National Hydrocarbons Commission has Published Guidelines for Assignments, Corporate Changes and Liens*, BAKER MCKENZIE (Mar. 14, 2023), <https://www.lexology.com/library/detail.aspx?g=5432cc27-262a-4cf8-ab7d-108a3f3d85ad>.

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.”⁴⁴² The English-language literature around Mexico’s oil decommissioning regime does not highlight any special tax regime applicable to decommissioning costs.⁴⁴³

12.4 Decommissioning Provisions in Mexican Contracts⁴⁴⁴

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.⁴⁴⁵

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.⁴⁴⁶

⁴⁴² Carlos de Maria y Campos, Antonio Borja, Germán Fernández, *Energy: Oil and Gas 2022—Mexico: Law and Practice*, CHAMBERS & PARTNERS (June 21, 2022), <https://practiceguides.chambers.com/practice-guides/energy-oil-gas-2022/mexico/trends-and-developments>.

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.

⁴⁴⁵ Comisión Nacional de Hidrocarburos, Chevron Energía de México S. de R.L. de C.V.; INPEX E&P México, S.A. de C.V., 2018, Article 1.1, <https://resourcecontracts.org/contract/ocds-591adf-9640020397/view#/pdf>.

⁴⁴⁶ Comisión Nacional de Hidrocarburos, Chevron Energía de México S. de R.L. de C.V., INPEX E&P México, S.A. de C.V., Exploration and Exploitation License, 2018, Article 18, <https://resourcecontracts.org/contract/ocds-591adf-9640020397/view#/pdf>.

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.⁴⁴⁷ 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.⁴⁴⁸

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.⁴⁴⁹

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.⁴⁵⁰ Mexican contracts analyzed for this report do not grant any special tax status to this fund,⁴⁵¹

⁴⁴⁷ Comisión Nacional de Hidrocarburos, PC Carigali Mexico Operations S.A. de C.V., OPHIR MEXICO OPERATIONS S.A. de C.V., PTTEP MÉXICO E&P LIMITED S. de R.L. de C.V., Exploration and Exploitation License, 2018. Article 18.1, <https://resourcecontracts.org/contract/ocds-591adf-8670893486/view#/pdf>.

⁴⁴⁸ Comisión Nacional de Hidrocarburos, Chevron Energía de México S. de R.L. de C.V., INPEX E&P México, S.A. de C.V., Exploration and Exploitation License, 2018, Article 1.1, <https://resourcecontracts.org/contract/ocds-591adf-9640020397/view#/pdf>; Comisión Nacional de Hidrocarburos, PC Carigali Mexico Operations S.A. de C.V., OPHIR MEXICO OPERATIONS S.A. de C.V., PTTEP MÉXICO E&P LIMITED S. de R.L. de C.V., Exploration and Exploitation License, 2018. Article 1.1, <https://resourcecontracts.org/contract/ocds-591adf-8670893486/view#/pdf>.

⁴⁴⁹ Comisión Nacional de Hidrocarburos, Chevron Energía de México S. de R.L. de C.V., INPEX E&P México, S.A. de C.V., Exploration and Exploitation License, 2018, Article 18.1, <https://resourcecontracts.org/contract/ocds-591adf-9640020397/view#/pdf>; Comisión Nacional de Hidrocarburos, PC Carigali Mexico Operations S.A. de C.V., OPHIR MEXICO OPERATIONS S.A. de C.V., PTTEP MÉXICO E&P LIMITED S. de R.L. de C.V., Exploration and Exploitation License, 2018. Article 18.1, <https://resourcecontracts.org/contract/ocds-591adf-8670893486/view#/pdf>.

⁴⁵⁰ Comisión Nacional de Hidrocarburos, PC Carigali Mexico Operations S.A. de C.V., OPHIR MEXICO OPERATIONS S.A. de C.V., PTTEP MÉXICO E&P LIMITED S. de R.L. de C.V., Exploration and Exploitation License, 2018, Articles 18.3-5, <https://resourcecontracts.org/contract/ocds-591adf-8670893486/view#/pdf>.

⁴⁵¹ Comisión Nacional de Hidrocarburos, Chevron Energía de México S. de R.L. de C.V., INPEX E&P México, S.A. de C.V., Exploration and Exploitation License, 2018, Article 18, <https://resourcecontracts.org/contract/ocds-591adf->

and the existence of a decommissioning fund does not limit the liability of the responsible private company for any decommissioning cost overruns.⁴⁵²

[9640020397/view#/pdf](https://resourcecontracts.org/contract/ocds-591adf-8670893486/view#/pdf); Comisión Nacional de Hidrocarburos, PC Carigali Mexico Operations S.A. de C.V., OPHIR MEXICO OPERATIONS S.A. de C.V., PTTEP MÉXICO E&P LIMITED S. de R.L. de C.V., Exploration and Exploitation License, 2018. Article 18, <https://resourcecontracts.org/contract/ocds-591adf-8670893486/view#/pdf>.

⁴⁵² Comisión Nacional de Hidrocarburos, Chevron Energía de México S. de R.L. de C.V., INPEX E&P México, S.A. de C.V., Exploration and Exploitation License, 2018, Article 18.5, <https://resourcecontracts.org/contract/ocds-591adf-9640020397/view#/pdf>; Comisión Nacional de Hidrocarburos, PC Carigali Mexico Operations S.A. de C.V., OPHIR MEXICO OPERATIONS S.A. de C.V., PTTEP MÉXICO E&P LIMITED S. de R.L. de C.V., Exploration and Exploitation License, 2018. Article 18.5, <https://resourcecontracts.org/contract/ocds-591adf-8670893486/view#/pdf>.

13. APPENDIX 7: NIGERIA

13.1 Sources of Law

13.1.1 Major International Conventions

Nigeria is a party to the Geneva Convention,⁴⁵³ a party to UNCLOS,⁴⁵⁴ a member of the IMO,⁴⁵⁵ and a party to both the London Convention and the 1996 protocol.⁴⁵⁶

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.⁴⁵⁷

13.1.2 National Law

The 1999 constitution of Nigeria grants sole ownership of oil and natural gas resources to Nigeria’s federal government.⁴⁵⁸ 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”).⁴⁵⁹

⁴⁵³ *Convention on the Continental Shelf*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXI-4&chapter=21&clang=en.

⁴⁵⁴ *United Nations Convention on the Law of the Sea*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=en.

⁴⁵⁵ *Member States*, INTERNATIONAL MARITIME ORGANIZATION (n.d.), <https://www.imo.org/en/OurWork/ERO/Pages/MemberStates.aspx>.

⁴⁵⁶ See STATUS OF CONVENTIONS: RATIFICATIONS BY STATE, INTERNATIONAL MARITIME ORGANIZATION (Mar. 22, 2023), <https://www.wcdn.imo.org/localresources/en/About/Conventions/StatusOfConventions/x-Status.pdf>.

⁴⁵⁷ Brian F.I. Anyatang & Bassey E. Kooffreh, *Abandonment/Decommissioning under Nigerian Legal Regimes: A Comparative Analysis*, 23(2) ENV. L. REV. 110, 116 (2021).

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

⁴⁵⁹ Taiwo Afonja, Rogba Payne & Rere Oye, *Nigeria*, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 525, 529 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

In 2021 Nigeria replaced the Petroleum Act of 1969 with the Petroleum Industry Act of 2021, which significantly restructured Nigeria’s oil and gas regulatory landscape.⁴⁶⁰ The Petroleum Industry Act transformed the Nigerian National Petroleum Company, Nigeria’s longstanding state-run oil and gas operator, into the Nigerian National Petroleum Company Limited (“NNPCL”), an independent (although still state-owned) commercial entity.⁴⁶¹

The Petroleum Industry Act also established two new regulators, one with jurisdiction over upstream operations and one with jurisdiction over midstream and downstream operations.⁴⁶² 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.”⁴⁶³ 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.⁴⁶⁴ These awards can include, but are not limited to, production sharing contracts, profit-sharing contracts, risk service contracts, and concession agreements.⁴⁶⁵

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.”⁴⁶⁶

⁴⁶⁰ Kasirim Nwuke, *Nigeria’s Petroleum Industry Act: Addressing Old Problems, Creating New Ones*, BROOKINGS (Nov. 24, 2021), <https://www.brookings.edu/blog/africa-in-focus/2021/11/24/nigerias-petroleum-industry-act-addressing-old-problems-creating-new-ones/>.

⁴⁶¹ Mary Ikuaza, *NNPC Limited Ends Operations as Govt. Corporation*, PREMIUM TIMES (Feb. 18, 2023), <https://www.premiumtimesng.com/news/top-news/582778-nnpc-limited-ends-operations-as-govt-corporation.html>.

⁴⁶² *Petroleum Industry Act*, INTERNATIONAL ENERGY ASSOCIATION (July 29, 2022), <https://www.iea.org/policies/16100-petroleum-industry-act>.

⁴⁶³ *Id.*

⁴⁶⁴ Chinedu Kema, Josephine Udonsak, Adeleke Alao, & Jeremy Odor, *Oil and Gas Regulations: Nigeria 2023*, ICLG (Feb. 2, 2023), <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/nigeria>.

⁴⁶⁵ *Id.*

⁴⁶⁶ See *Notice of Consultation with Stakeholders on Phase Two (2) of Regulations Development in Compliance with Section 216 of the Petroleum Industry Act 2021 (PIA)*, NIGERIAN UPSTREAM PETROLEUM REGULATORY COMMISSION (Aug. 1, 2022), <https://www.nuprc.gov.ng/the-petroleum-industry-act-2021-pia/>; see also Emmanuel Addeh, *Nigeria Commences Third Round of Regulations, Moves to Ensure Transparency in Oil Measurement*, ARISE NEWS (Feb. 7, 2023),

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

<https://www.arise.tv/nigeria-commences-third-round-of-regulations-moves-to-ensure-transparency-in-oil-measurement/>.

⁴⁶⁷ Petroleum Industries Act (2021) Cap. (2) § 232(4), O.G. A.121, A.271 (Nigeria).

⁴⁶⁸ Damilola Salawu, Folashade Oluyadi, Chukwuemeka Osuji, Olamide Aiyeola, *Energy: Oil and Gas 2022—Nigeria*, CHAMBERS & PARTNERS (Aug. 9, 2022), <https://practiceguides.chambers.com/practice-guides/comparison/685/9304/14961-14966-14977-14991-14994-15001>.

⁴⁶⁹ Petroleum Industries Act (2021) Cap. (2) § 232(1)(a)–(b), O.G. A.121, A.271 (Nigeria).

⁴⁷⁰ Damilola Salawu, Folashade Oluyadi, Chukwuemeka Osuji, Olamide Aiyeola, *Energy: Oil and Gas 2022—Nigeria*, CHAMBERS & PARTNERS (Aug. 9, 2022), <https://practiceguides.chambers.com/practice-guides/comparison/685/9304/14961-14966-14977-14991-14994-15001>.

⁴⁷¹ Petroleum Industries Act (2021) Cap. (2) § 232(13), O.G. A.121, A.275 (Nigeria).

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

⁴⁷² Damilola Salawu, Folashade Oluyadi, Chukwuemeka Osuji, Olamide Aiyeola, *Energy: Oil and Gas 2022—Nigeria*, CHAMBERS & PARTNERS (Aug. 9, 2022), <https://practiceguides.chambers.com/practice-guides/comparison/685/9304/14961-14966-14977-14991-14994-15001>.

⁴⁷³ Petroleum Industries Act (2021) Cap. (2) § 233(5), O.G. A.121, A.274 (Nigeria).

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).

⁴⁷⁹ Chinedu Kema, Josephine Udonsak, Adeleke Alao, & Jeremy Odor, *Oil and Gas Regulations: Nigeria 2023*, ICLG (Feb. 2, 2023), <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/nigeria>.

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 Contracts⁴⁸²

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,

⁴⁸⁰ Petroleum Industries Act (2021) Cap. (2) § 233(11), O.G. A.121, A.275 (Nigeria).

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.

⁴⁸³ Nigerian National Petroleum Corporation, Shell Petroleum Development Company of Nigeria Ltd., Nigerian Agip Oil Company Ltd., Elf Petroleum Nigeria Ltd., and Universal Energy Resources Limited, Farmout Agreement, 2003, Article 14.4, <https://resourcecontracts.org/contract/ocds-591adf-6921063233/view#/pdf>.

fixtures, [and] the restoration of sites and structures,” including the payment of damages relating thereto.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.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.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.⁴⁸⁷

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), <https://resourcecontracts.org/contract/ocds-591adf-0523462294/view#/pdf>;

Nigerian Petroleum Development Company Limited, Atlantic Energy Drilling Concepts Nigeria Limited, Production Sharing Agreement, 2011, Annex C, Article 2(o), <https://resourcecontracts.org/contract/ocds-591adf-6476275683/view#/pdf>.

⁴⁸⁵ Nigerian National Petroleum Corporation, Shell Petroleum Development Company of Nigeria Ltd., Nigerian Agip Oil Company Ltd., Elf Petroleum Nigeria Ltd., and Universal Energy Resources Limited, Farmout Agreement, 2003, Article 14.4, <https://resourcecontracts.org/contract/ocds-591adf-6921063233/view#/pdf>.

⁴⁸⁶ Nigerian National Petroleum Corporation, Shell Petroleum Development Company of Nigeria Ltd., Nigerian Agip Oil Company Ltd., Elf Petroleum Nigeria Ltd., and Universal Energy Resources Limited, Farmout Agreement, 2003, Article 14.4, <https://resourcecontracts.org/contract/ocds-591adf-6921063233/view#/pdf>.

⁴⁸⁷ Nigerian National Petroleum Corporation, Shell Petroleum Development Company of Nigeria Ltd., Nigerian Agip Oil Company Ltd., Elf Petroleum Nigeria Ltd., and Universal Energy Resources Limited, Farmout Agreement, 2003, Article 15.12.1, <https://resourcecontracts.org/contract/ocds-591adf-6921063233/view#/pdf>.

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.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 fund⁴⁸⁹ 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.⁴⁹⁰ The private oil company remains responsible for any shortfall or surplus arising from the decommissioning or abandonment operations.⁴⁹¹ Analyzed Nigerian contracts did not grant any particular tax benefits to the fund.⁴⁹²

⁴⁸⁸ Nigerian National Petroleum Corporation, Shell Petroleum Development Company of Nigeria Ltd., Nigerian Agip Oil Company Ltd., Elf Petroleum Nigeria Ltd., and Universal Energy Resources Limited, Farmout Agreement, 2003, Article 14.4, <https://resourcecontracts.org/contract/ocds-591adf-6921063233/view#/pdf>.

⁴⁸⁹ Nigerian National Petroleum Corporation, Shell Petroleum Development Company of Nigeria Ltd., Nigerian Agip Oil Company Ltd., Elf Petroleum Nigeria Ltd., and Universal Energy Resources Limited, Farmout Agreement, 2003, Article 14.2, <https://resourcecontracts.org/contract/ocds-591adf-6921063233/view#/pdf>.

⁴⁹⁰ Nigerian National Petroleum Corporation, Gas Transmission and Power Limited, Energy 905 Suntera Limited, Ideal Oil and Gas, Production Sharing Agreement, 2007, Clause 12.7, <https://resourcecontracts.org/contract/ocds-591adf-0523462294/view#/pdf>;

⁴⁹¹ Nigerian National Petroleum Corporation, Shell Petroleum Development Company of Nigeria Ltd., Nigerian Agip Oil Company Ltd., Elf Petroleum Nigeria Ltd., and Universal Energy Resources Limited, Farmout Agreement, 2003, Article 14, <https://resourcecontracts.org/contract/ocds-591adf-6921063233/view#/pdf>.

⁴⁹² Nigerian National Petroleum Corporation, Shell Petroleum Development Company of Nigeria Ltd., Nigerian Agip Oil Company Ltd., Elf Petroleum Nigeria Ltd., and Universal Energy Resources Limited, Farmout Agreement, 2003, Article 14, <https://resourcecontracts.org/contract/ocds-591adf-6921063233/view#/pdf>.

14. APPENDIX 8: NORWAY

14.1 Sources of Law

14.1.1 Major International Conventions

Norway is a party to the Geneva Convention,⁴⁹³ a party to UNCLOS,⁴⁹⁴ a member of the IMO,⁴⁹⁵ and a party to both the London Convention and the 1996 protocol.⁴⁹⁶ At the regional level Norway is also a contracting party to the OSPAR Convention.⁴⁹⁷

14.1.2 National Law

Since 1963, Norway has reserved “exclusive rights to subsea natural resources for the state.”⁴⁹⁸ 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.⁴⁹⁹ “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.”⁵⁰⁰ The Norwegian Petroleum Directorate acts as an advisor and administrator under the Ministry of Petroleum and Energy.⁵⁰¹

⁴⁹³ *Convention on the Continental Shelf*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXI-4&chapter=21&clang=en.

⁴⁹⁴ *United Nations Convention on the Law of the Sea*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=en.

⁴⁹⁵ *Member States*, INTERNATIONAL MARITIME ORGANIZATION (n.d.), <https://www.imo.org/en/OurWork/ERO/Pages/MemberStates.aspx>.

⁴⁹⁶ See STATUS OF CONVENTIONS: RATIFICATIONS BY STATE, INTERNATIONAL MARITIME ORGANIZATION (Mar. 22, 2023), <https://www.wcdn.imo.org/localresources/en/About/Conventions/StatusOfConventions/x-Status.pdf>.

⁴⁹⁷ *Contracting Parties*, OSPAR COMMISSION (n.d.), <https://www.ospar.org/organisation/contracting-parties>.

⁴⁹⁸ Catherine Bannet, *Norway*, in THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES 541, 542 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

⁴⁹⁹ *Id.* at 542, 548.

⁵⁰⁰ OVERVIEW OF INTERNATIONAL OFFSHORE DECOMMISSIONING REGULATIONS 58, INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (July 2017), <https://www.iogp.org/bookstore/product/overview-of-international-offshore-decommissioning-regulations-volume-1-facilities/>.

⁵⁰¹ *Background Reference: Norway*, U.S. ENERGY INFORMATION AGENCY (Jan. 7, 2019), https://www.eia.gov/international/content/analysis/countries_long/Norway/background.htm.

Since 1965, private companies have participated in Norway’s offshore oil and gas industry through a series of increasingly regulated licenses,⁵⁰² which grant “exclusive rights to survey, exploration drilling and production of petroleum deposits in areas covered by the license.”⁵⁰³ The Petroleum Act itself contains “comprehensive obligations” that require licensees to engage in decommissioning.⁵⁰⁴ 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.”⁵⁰⁵ These JOAs contain additional decommissioning obligations.⁵⁰⁶

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.⁵⁰⁷ 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.⁵⁰⁸ Petoro directly manages Norway’s SDFI as a fiduciary, with the primary goal of “maximi[zing] state revenues from the portfolio.”⁵⁰⁹ Separately, Equinor ASA (formerly Statoil), is a publicly traded energy company that operates “about 70% of all

⁵⁰² Catherine Bannet, *Norway*, in *THE REGULATION OF DECOMMISSIONING, ABANDONMENT AND REUSE INITIATIVES IN THE OIL AND GAS INDUSTRY: FROM OBLIGATION TO OPPORTUNITIES* 541, 542 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

⁵⁰³ HANNE STORESTEIN & GURO KRISTOFFERSEN LYSNES, *LIABILITY FOR DECOMMISSIONING OF OIL AND GAS INSTALLATIONS ON THE NORWEGIAN CONTINENTAL SHELF: NORWEGIAN PUBLIC AND PRIVATE LAW PERSPECTIVES* 25 (Univ. Bergen May 10, 2022).

⁵⁰⁴ IGNACIO HERRERA ANCHUSTEGUI, GUNNAR S. ESKELAND, FRODE SKJERET, *UNDERSTANDING DECOMMISSIONING OF OFFSHORE INFRASTRUCTURES: A LEGAL AND ECONOMIC APPETIZER* 57, CENTER FOR APPLIED RESEARCH AT NHH BERGEN (Mar. 2022), https://snf.no/media/0mtbtopm/r07_21.pdf.

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.*

⁵⁰⁷ *Establishment of SDFI and Petoro*, PETORO (n.d.), <https://www.petoro.no/about-petoro/establishment-of-sdfi-and-petoro>.

⁵⁰⁸ *The Government’s Revenues*, NORWEGIAN PETROLEUM (n.d.), <https://www.norskpetroleum.no/en/economy/governments-revenues/>.

⁵⁰⁹ *State Organization of Petroleum Activities*, NORWEGIAN PETROLEUM (n.d.), <https://www.norskpetroleum.no/en/framework/state-organisation-of-petroleum-activites/>.

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.*

⁵¹² HANNE STORESTEIN & GURO KRISTOFFERSEN LYSNES, LIABILITY FOR DECOMMISSIONING OF OIL AND GAS INSTALLATIONS ON THE NORWEGIAN CONTINENTAL SHELF: NORWEGIAN PUBLIC AND PRIVATE LAW PERSPECTIVES 30 (Univ. Bergen May 10, 2022).

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

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).

⁵²⁰ See, e.g., Melisa Cavcic, *Equinor Closes Veslefrikk Chapter in Readiness for Decom Opps*, OFFSHORE ENERGY (Feb. 22, 2022), <https://www.offshore-energy.biz/equinor-closes-veslefrikk-chapter-in-readiness-for-decom-ops/> (discussing Equinor’s decommissioning of offshore oil and gas facilities in Norway).

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

⁵²² *Id.*

⁵²³ 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-wiig-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.”).

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.⁵²⁵ The ministry may also evaluate transfers of, or changes of control over, licensees, to ensure the financial capacity of the new owner or operator.⁵²⁶ Through this process, the ministry “may decline the transfer or conditionally approve it subject to establishing security in another form.”⁵²⁷

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.⁵²⁸

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.⁵²⁹ 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.”⁵³⁰

14.4 Decommissioning Provisions in Norwegian Contracts⁵³¹

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

⁵²⁵ 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-wiig-advokatfirma/parent-company-guarantee-requirement-for-future-decommissioning-cost-in-corporate-transfers-on-ncs>.

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).

⁵²⁹ 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 TO OPPORTUNITIES* 167, 174 (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,⁵³² a party to UNCLOS,⁵³³ a member of the IMO,⁵³⁴ and a party to both the London Convention and the 1996 protocol.⁵³⁵ At the regional level the United Kingdom is also a contracting party to the OSPAR Convention.⁵³⁶

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 2016.⁵³⁷ 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.”⁵³⁸ The Continental Shelf Act of 1964 similarly vests the Crown with exploration and extraction rights over petroleum on the United Kingdom Continental Shelf.⁵³⁹ 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.

⁵³² *Convention on the Continental Shelf*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXI-4&chapter=21&clang=en.

⁵³³ *United Nations Convention on the Law of the Sea*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=en.

⁵³⁴ *Member States*, INTERNATIONAL MARITIME ORGANIZATION (n.d.), <https://www.imo.org/en/OurWork/ERO/Pages/MemberStates.aspx>.

⁵³⁵ See STATUS OF CONVENTIONS: RATIFICATIONS BY STATE, INTERNATIONAL MARITIME ORGANIZATION (Mar. 22, 2023), <https://www.wcdn.imo.org/localresources/en/About/Conventions/StatusOfConventions/x-Status.pdf>.

⁵³⁶ *Contracting Parties*, OSPAR COMMISSION (n.d.), <https://www.ospar.org/organisation/contracting-parties>.

⁵³⁷ See GUIDANCE NOTES: DECOMMISSIONING OF OFFSHORE OIL AND GAS INSTALLATIONS AND PIPELINES 10–13, OFFSHORE PETROLEUM REGULATOR FOR ENVIRONMENT AND DECOMMISSIONING (Nov. 2018), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/760560/Decom_Guidance_Notes_November_2018.pdf (outlining key laws regulating offshore decommissioning).

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

⁵³⁹ Practical Law Energy, *Ownership of Petroleum in the UK*, THOMSON REUTERS PRACTICAL LAW (July 2018), <https://us.practicallaw.thomsonreuters.com/w-016-0910>.

upstream oil and gas production through a comprehensive licensing regime.⁵⁴⁰ 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”).⁵⁴¹

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.⁵⁴² 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.”⁵⁴³ 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.⁵⁴⁴ 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.⁵⁴⁵

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

⁵⁴¹ *North Sea Transition Authority (NSTA) (UK)*, THOMSON REUTERS PRACTICAL LAW (n.d.), <https://uk.practicallaw.thomsonreuters.com/w-018-5577>.

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

⁵⁴³ *About Us*, OFFSHORE PETROLEUM REGULATOR FOR ENVIRONMENT AND DECOMMISSIONING (n.d.), <https://www.gov.uk/government/organisations/offshore-petroleum-regulator-for-environment-and-decommissioning/about>.

⁵⁴⁴ GUIDANCE NOTES: DECOMMISSIONING OF OFFSHORE OIL AND GAS INSTALLATIONS AND PIPELINES, OFFSHORE PETROLEUM REGULATOR FOR ENVIRONMENT AND DECOMMISSIONING (Nov. 2018), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/760560/Decom_Guidance_Notes_November_2018.pdf

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.).

⁵⁴⁷ 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), <https://bracewell.com/insights/decommissioning-oil-and-gas-wells-uk-%E2%80%93-high-court-delivers-important-judgment>.

⁵⁴⁸ GUIDANCE NOTES: DECOMMISSIONING OF OFFSHORE OIL AND GAS INSTALLATIONS AND PIPELINES, OFFSHORE PETROLEUM REGULATOR FOR ENVIRONMENT AND DECOMMISSIONING 21–22 (Nov. 2018), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/760560/Decom_Guidance_Notes_November_2018.pdf.

⁵⁴⁹ *Id.*

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

⁵⁵¹ 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), <https://bracewell.com/insights/decommissioning-oil-and-gas-wells-uk-%E2%80%93-high-court-delivers-important-judgment>.

decommissioning process has begun may be recalled to fulfill decommissioning obligations.⁵⁵² 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.⁵⁵³

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.”⁵⁵⁴ “The relinquishment of the field licence is not related to completion of a decommissioning programme or any ongoing liabilities under it.”⁵⁵⁵ 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.”⁵⁵⁶ 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.⁵⁵⁷

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.”⁵⁵⁸

⁵⁵² Michael Burns & Justyna Bremen, *Oil and Gas Regulation: United Kingdom 2023*, ICLG (Feb. 22, 2023), <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/united-kingdom>.

⁵⁵³ 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), <https://bracewell.com/insights/decommissioning-oil-and-gas-wells-uk-%E2%80%93-high-court-delivers-important-judgment>.

⁵⁵⁴ GUIDANCE NOTES: DECOMMISSIONING OF OFFSHORE OIL AND GAS INSTALLATIONS AND PIPELINES, OFFSHORE PETROLEUM REGULATOR FOR ENVIRONMENT AND DECOMMISSIONING 72 (Nov. 2018), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/760560/Decom_Guidance_Notes_November_2018.pdf.

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

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/760560/Decom_Guidance_Notes_November_2018.pdf.

⁵⁵⁹ Petroleum Act 1988, Ch. 17, § 38(1), (1A)(a) (Eng.).

⁵⁶⁰ FINANCIAL GUIDANCE 5, NORTH SEA TRANSITION AUTHORITY (Aug. 8, 2018), <https://www.nstauthority.co.uk/media/8011/financial-guidance-august-2018.pdf>.

⁵⁶¹ *Id.*

⁵⁶² *Id.* at 7.

⁵⁶³ Michael Burns & Justyna Bremen, *Oil and Gas Regulation: United Kingdom 2023*, ICLG (Feb. 22, 2023), <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/united-kingdom>.

⁵⁶⁴ *Id.*

(‘DSA’) where it is deemed that the participants may be unable to pay for decommissioning costs.”⁵⁶⁵ 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.⁵⁶⁶ Where the Secretary is a party to a DSA, OPRED guidance sets detailed security requirements.⁵⁶⁷

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.⁵⁶⁸ 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.⁵⁶⁹

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.⁵⁷⁰ Within this structure decommission costs are deductible as capital expenditure when the costs are incurred,⁵⁷¹ and losses from decommissioning costs can generally “be carried forward and set against subsequent profits of the ring fence trade, without restriction.”⁵⁷²

⁵⁶⁵ *Id.*

⁵⁶⁶ GUIDANCE NOTES: DECOMMISSIONING OF OFFSHORE OIL AND GAS INSTALLATIONS AND PIPELINES, OFFSHORE PETROLEUM REGULATOR FOR ENVIRONMENT AND DECOMMISSIONING 115 (Nov. 2018), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/760560/Decom_Guidance_Notes_November_2018.pdf.

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).

⁵⁷⁰ Michael Burns & Justyna Bremen, *Oil and Gas Regulation: United Kingdom 2023*, ICLG (Feb. 22, 2023), <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/united-kingdom>.

⁵⁷¹ *Id.*

⁵⁷² *Corporation Tax Ring Fence: Losses and Group Relief: Losses Carried Forward: Restricted Relief*, HMRC OIL TAXATION MANUAL (Feb. 21, 2023), <https://www.gov.uk/hmrc-internal-manuals/oil-taxation-manual/ot28470>.

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.

⁵⁷⁵ Oil and Gas Authority, *Anasuria Hibiscus UK Limited, Zennor Exploration Limited, Exploitation and Exploration License*, 2021, Article 19, <https://resourcecontracts.org/contract/ocds-591adf-6212621955/view#/pdf>;

Oil and Gas Authority, *Apache North Sea Limited, Exploitation and Exploration License*, 2021, Article 19, <https://resourcecontracts.org/contract/ocds-591adf-9695361716/view#/pdf>.

⁵⁷⁶ Oil and Gas Authority, *Apache North Sea Limited, Exploitation and Exploration License*, 2021, Article 19(6)–(9), <https://resourcecontracts.org/contract/ocds-591adf-9695361716/view#/pdf>.

⁵⁷⁷ Oil and Gas Authority, *Apache North Sea Limited, Exploitation and Exploration License*, 2021, Article 19(10)–(11), <https://resourcecontracts.org/contract/ocds-591adf-9695361716/view#/pdf>.

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

⁵⁷⁸ Oil and Gas Authority, Anasuria Hibiscus UK Limited, Zennor Exploration Limited, Exploitation and Exploration License, 2021, Article 22, <https://resourcecontracts.org/contract/ocds-591adf-6212621955/view#/pdf>;

Oil and Gas Authority, Apache North Sea Limited, Exploitation and Exploration License, 2021, Article 19, <https://resourcecontracts.org/contract/ocds-591adf-9695361716/view#/pdf>.

⁵⁷⁹ See, e.g., Oil and Gas Authority, Anasuria Hibiscus UK Limited, Zennor Exploration Limited, Exploitation and Exploration License, 2021, Article 22, <https://resourcecontracts.org/contract/ocds-591adf-6212621955/view#/pdf>.

⁵⁸⁰ Oil and Gas Authority, Anasuria Hibiscus UK Limited, Zennor Exploration Limited, Exploitation and Exploration License, 2021, Article 19(5), <https://resourcecontracts.org/contract/ocds-591adf-6212621955/view#/pdf>.

⁵⁸¹ Oil and Gas Authority, Anasuria Hibiscus UK Limited, Zennor Exploration Limited, Exploitation and Exploration License, 2021, Article 19, <https://resourcecontracts.org/contract/ocds-591adf-6212621955/view#/pdf>;

Oil and Gas Authority, Apache North Sea Limited, Exploitation and Exploration License, 2021, Article 19, <https://resourcecontracts.org/contract/ocds-591adf-9695361716/view#/pdf>.

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,⁵⁸² a member of the IMO,⁵⁸³ and a party to the London Convention (but not the 1996 Protocol).⁵⁸⁴ 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.⁵⁸⁵

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.⁵⁸⁶ As “the United States has yet to ratify the UNCLOS, [it] consequently is not bound by its terms.”⁵⁸⁷ 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,⁵⁸⁸ and U.S. courts occasionally look to UNCLOS as “a codification of customary international law.”⁵⁸⁹

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

⁵⁸² *Convention on the Continental Shelf*, UNITED NATIONS TREATY COLLECTION (n.d.), https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXI-4&chapter=21&clang=en.

⁵⁸³ *Member States*, INTERNATIONAL MARITIME ORGANIZATION (n.d.), <https://www.imo.org/en/OurWork/ERO/Pages/MemberStates.aspx>.

⁵⁸⁴ See STATUS OF CONVENTIONS: RATIFICATIONS BY STATE, INTERNATIONAL MARITIME ORGANIZATION (Mar. 22, 2023), <https://wwwcdn.imo.org/localresources/en/About/Conventions/StatusOfConventions/x-Status.pdf>.

⁵⁸⁵ See *Treaties*, U.S. BUREAU OF OCEAN ENERGY MANAGEMENT (n.d.), <https://www.boem.gov/oil-gas-energy/treaties>.

⁵⁸⁶ Office of the Staff Judge Advocate, U.S. Indo-Pacific Command, *The U.S. Position on the U.N. Convention on the Law of the Sea (UNCLOS)*, 97 INT’L L. STUD. 81, 82 (2021).

⁵⁸⁷ Eduardo Canales, Steven P. Otilar, *United States*, in OIL AND GAS DECOMMISSIONING: LAW, POLICY, AND COMPARATIVE PRACTICE 415, 422 (Marc Hammerson & Nicholas Antonas eds., 2nd. ed. 2016).

⁵⁸⁸ Office of the Staff Judge Advocate, U.S. Indo-Pacific Command, *The U.S. Position on the U.N. Convention on the Law of the Sea (UNCLOS)*, 97 INT’L L. STUD. 81, 82 (2021).

⁵⁸⁹ Ved P. Nanda, David K. Pansius, Bryan Neihart, *Unratified Treaties*, in LITIGATION OF INTERNATIONAL DISPUTES IN U.S. COURTS (Dec. 2022).

“the effective administration of relevant federal laws, as a practical matter, aligns actions of the United States with most provisions of the modernized treaty.”⁵⁹⁰

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.⁵⁹¹ 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.⁵⁹² 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.⁵⁹³ 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.⁵⁹⁴ 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).⁵⁹⁵ The

⁵⁹⁰ *Ocean Dumping: International Treaties*, U.S. ENVIRONMENTAL PROTECTION AGENCY (Feb. 16, 2023), <https://www.epa.gov/ocean-dumping/ocean-dumping-international-treaties>.

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.*

⁵⁹² *United States v. California*, 332 U.S. 19 (1947); *United States v. Louisiana*, 339 U.S. 699 (1950); *United States v. Texas*, 339 U.S. 707 (1950).

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.”).

⁵⁹⁴ Robert T. Anderson, *Protecting Offshore Areas from Oil and Gas Leasing: Presidential Authority Under the Outer Continental Shelf Lands Act and the Antiquities Act*, 44 *ECOLOGY L.Q.* 727, 739 (2018).

⁵⁹⁵ ADAM VANN, *OFFSHORE OIL AND GAS DEVELOPMENT: LEGAL FRAMEWORK*, CONGRESSIONAL RESEARCH SERVICE 2–3 (Apr. 13, 2018), <https://sgp.fas.org/crs/misc/RL33404.pdf>.

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.*

⁵⁹⁷ *Offshore Oil and Gas: Offshore Drilling*, (Oct. 4, 2022), <https://www.eia.gov/energyexplained/oil-and-petroleum-products/offshore-oil-and-gas-in-depth.php>.

⁵⁹⁸ *Oil & Gas*, CALIFORNIA STATE LANDS COMMISSION (n.d.), <https://www.slc.ca.gov/oil-gas/>.

⁵⁹⁹ *Id.*

⁶⁰⁰ *Id.*

⁶⁰¹ ADAM VANN, OFFSHORE OIL AND GAS DEVELOPMENT: LEGAL FRAMEWORK, CONGRESSIONAL RESEARCH SERVICE 3 (Apr. 13, 2018), <https://sgp.fas.org/crs/misc/RL33404.pdf>.

⁶⁰² 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).

⁶⁰³ *Leasing*, BUREAU OF OCEAN ENERGY MANAGEMENT (n.d.), <https://www.boem.gov/oil-gas-energy/leasing>.

obligations.⁶⁰⁴ 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.”⁶⁰⁵ BSEE sets rules and technical standards for decommissioning, and generally acts as “the primary agency responsible for regulating decommissioning.”⁶⁰⁶ 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.”⁶⁰⁷

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.”⁶⁰⁸ 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.⁶⁰⁹ 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.⁶¹⁰ If multiple people or entities incur decommissioning obligations for the same asset, they are held jointly and severally liable for fulfilling those obligations.⁶¹¹

⁶⁰⁴ Keith B. Hall, *Decommissioning Oil and Gas Facilities in the United States*, 14 CHARLESTON L. REV. 437, 449 (2020).

⁶⁰⁵ *About BSEE*, Bureau of Safety & Environmental Enforcement (n.d.), <https://www.bsee.gov/who-we-are/about-bsee>.

⁶⁰⁶ Keith B. Hall, *Decommissioning Oil and Gas Facilities in the United States*, 14 CHARLESTON L. REV. 437, 449 (2020).

⁶⁰⁷ OFFSHORE OIL AND GAS: UPDATED REGULATIONS NEEDED TO IMPROVE PIPELINE OVERSIGHT AND DECOMMISSIONING, GAO (Mar. 2021), <https://www.gao.gov/assets/gao-21-293.pdf>.

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.”⁶¹² 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.⁶¹³

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.⁶¹⁴ Separately, facilities must generally be decommissioned when they “are no longer useful for operations,”⁶¹⁵ 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.”⁶¹⁶

However, ambiguities around the “usefulness” of facilities left the regulations open to abuse,⁶¹⁷ 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.⁶¹⁸ 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.⁶¹⁹

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.”).

⁶¹⁸ *Idle Iron Policy*, BUREAU OF SAFETY & ENVIRONMENTAL ENFORCEMENT (n.d.), <https://www.bsee.gov/what-we-do/environmental-focuses/decommissioning/idle-iron>.

⁶¹⁹ BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT, NTL No. 2018-G03 (Dec. 11, 2018), <https://www.bsee.gov/sites/bsee.gov/files/notices-to-lessees-ntl/ntl-2018-g03.pdf>.

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.

⁶²⁰ 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, 664 (Eduardo G. Pereira, Alexandra Wawryk, Heike Trischmann, Catherine Banet & Keith B. Hall eds. 2020).

⁶²¹ 33 U.S.C. § 2104(c)(4).

⁶²² 30 C.F.R. § 556.904(a).

⁶²³ 30 C.F.R. § 556.904(a).

⁶²⁴ Keith B. Hall, *Decommissioning of Offshore Oil and Gas Facilities in the United States*, 14 CHARLESTON L. REV. 437, 454 (2020).

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.”⁶²⁵ 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.⁶²⁶ 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.⁶²⁷

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].”⁶²⁸ 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.⁶²⁹ “Because of the significant expense associated with decommissioning, BOEM often determines that additional financial assurance is required.”⁶³⁰ At a baseline, supplemental security must take the form of a “surety bond” or treasury securities, although BOEM may approve alternative forms of security.⁶³¹

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).

⁶³⁰ Keith B. Hall, *Decommissioning of Offshore Oil and Gas Facilities in the United States*, 14 CHARLESTON L. REV. 437, 456 (2020).

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,”⁶³² and “it was producing an average of 20,000 barrels of oil equivalent per day or more.”⁶³³ 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.”⁶³⁴ Under this regime, “specific security for decommissioning was uncommon” because many of the larger oil and gas companies were able to effectively self-insure.⁶³⁵

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,⁶³⁶ and set an upper limit for self-insurance of 10% of the relevant company’s net worth.⁶³⁷ However, in early 2017 BOEM “paused indefinitely the implementation of the 2016 NTL,” which has been “effectively mothballed”⁶³⁸ and is now listed as “rescinded” on BOEM’s website.⁶³⁹ 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,⁶⁴⁰ 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”).

⁶³² Mary Koks, *All Good Things Must Come to an End: Decommissioning Oil and Gas Facilities and Bankruptcy Impacts* 7, in SIXTY-EIGHTH ANNUAL INSTITUTE ON OIL AND GAS LAW (2017).

⁶³³ Keith B. Hall, *Decommissioning of Offshore Oil and Gas Facilities in the United States*, 14 CHARLESTON L. REV. 437, 456 (2020).

⁶³⁴ *Id.* at 457.

⁶³⁵ Robert James, Norman Carlin, Stella Pulman, *Practitioner Insights: Decommissioning Offshore Oil Platforms*, BLOOMBERG ENVIRONMENT & ENERGY (Jan. 27, 2017).

⁶³⁶ *Id.* at 458.

⁶³⁷ NTL No. 2016-N01, BOEM 4 (Sept. 12, 2016), https://www.boem.gov/sites/default/files/documents/renewable-energy/BOEM-NTL-2016-N01_0.pdf.

⁶³⁸ *10 Questions Series: How a Reinstated NTL No. 2016-N01 Could Detrimentally Affect Offshore Oil and Gas Operators on the Outer Continental Shelf*, VINSON & ELKINS (Jan. 26, 2021), <https://www.velaw.com/insights/10-questions-series-how-a-reinstated-ntl-no-2016-n01-could-detrimentally-affect-offshore-oil-and-gas-operators-on-the-outer-continental-shelf/>.

⁶³⁹ NTL No. 2016-N01, BOEM (Sept. 12, 2016), https://www.boem.gov/sites/default/files/documents/renewable-energy/BOEM-NTL-2016-N01_0.pdf.

⁶⁴⁰ 85 Fed. Reg. 65,904 (Oct. 16, 2020), <https://www.boem.gov/sites/default/files/documents/about-boem/regulations-guidance/federal-register/proposed-rules/85-FR-65904.pdf>.

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."⁶⁴¹ 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."⁶⁴² 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."⁶⁴³ 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."⁶⁴⁴

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.⁶⁴⁵

⁶⁴¹ *Id.* at 42,142.

⁶⁴² *Id.* at 42,145.

⁶⁴³ *Id.*

⁶⁴⁴ 42,146.

⁶⁴⁵ Risk Management and Financial Assurance for OCS Lease and Grant Obligations, 88 Fed. Reg. 42,136, 42,137 (Jun. 29, 2023), <https://www.federalregister.gov/documents/2023/06/29/2023-12916/risk-management-and-financial-assurance-for-ocs-lease-and-grant-obligations>.

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.

⁶⁴⁶ DELOITTE, OIL AND GAS TAXATION IN THE UNITED STATES 3 (2013).