

# Identifying and Addressing 4 Hidden Risks In Renewable Energy Projects

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The renewable energy sector surged in 2023 with solar and wind leading the charge. This growth trajectory is poised to continue due to heavy incentives in the Inflation Reduction Act. Renewable energy use is projected to increase by 17% in 2024 to generate nearly a quarter of the United States' electricity.<sup>1</sup>

This expansion underscores the momentum within the industry and presents lucrative opportunities for engineering firms engaged in the renewable energy sector. Such opportunities, however, present unique risks that require careful consideration. This article explores four unique risks and outlines strategies for minimizing exposure to engineering firms.

## 4 Emerging Risks in Renewable Energy Projects

For engineering firms involved in renewable energy projects, an understanding of emerging risks is important to safeguard interests. Consider the following risks:

- 1. Offshore Risk:** While offshore wind turbine projects present enticing opportunities for engineering firms involved in renewable energy, they are accompanied by many unknowns. Of course, these projects include the exciting challenges of marine, geotechnical, and structural analysis. The offshore location of these projects, however, falls under the jurisdiction of federal maritime law, notably the Jones Act.<sup>2</sup> The Jones Act imposes distinct duties and liabilities upon employers for employees injured offshore that are above and beyond the typical workers' compensation requirements and insurance coverage. These projects therefore often require Maritime Employers' Liability coverage.

Offshore construction may also inadvertently impact marine ecosystems as seen in the controversy surrounding the beaching and mortality of North Atlantic right whales, allegedly due to offshore wind farm construction.<sup>3</sup> The hot-button nature of such controversies presents the risk of lawsuits, government action, and tarnishing a firm's reputation.

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<sup>1</sup> Marlene Motyka, Jim Thomson, Kate Hardin, and Carolyn Amon, *2024 renewable energy industry outlook*, DELOITTE, <https://www2.deloitte.com/us/en/insights/industry/renewable-energy/renewable-energy-industry-outlook.html?id=us:2em:3pa:technology:eng:di:121123>.

<sup>2</sup> *Domestic Shipping*, U.S. Department of Transportation Maritime Administration, (Jan. 23, 2023), <https://www.maritime.dot.gov/ports/domestic-shipping/domestic-shipping>.

<sup>3</sup> *North Atlantic Right Whale: Road to Recovery*, NOAA Fisheries, (Apr. 4, 2024), <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale/road-recovery>.

- Onshore Wind Risk:** The saga involving Enel, an Italian energy company, and the Osage Nation underscores the legal complexities inherent in onshore wind projects. Disputes over land rights and environmental concerns can escalate into costly legal battles, as demonstrated by the federal court ruling that mandated the removal of Enel's turbines from Osage tribal land.<sup>4</sup> In this case, deconstructing the Oklahoma wind farm with 84 wind turbines across 1,000 acres could cost the firm more than \$300 million, not to mention the reputational harm on the business. Engineering firms providing land planning and permitting advice for such ventures may find themselves liable for oversights, facing significant financial repercussions and reputational damage.
- New and Emerging Law on Lithium:** The impending regulations on lithium by the Environmental Protection Agency ("EPA")<sup>5</sup> pose a unique challenge for engineering firms engaged in electric vehicle battery and utility-scale battery storage products. The EPA signaled in 2021 that it would be monitoring lithium with UCMR 5.<sup>6</sup> With the rise in electric vehicle manufacturing, lithium is poised to become a regulated material due to its waste stream implications. Engineering firms must stay informed of evolving EPA regulations to ensure compliance and mitigate potential legal and operational exposure associated with lithium management.
- Renewable Energy Waste Risks:** The disposal of decommissioned wind turbine blades and solar panels presents a growing environmental and logistical challenge for engineering firms in the renewable energy sector. Vast landfills of wind turbine blades accumulate materials like carbon fiber, fiberglass, and PFAs, which therefore pose significant waste management risk.<sup>7</sup> With limited recycling options and a surge in renewable installations over the past decade, engineering firms must manage the responsible disposal of what will be a growing stock of renewable energy hardware.



## Take Action

To mitigate the aforementioned risks, environmental engineering firms can employ two solutions: (1) risk mitigation through robust risk management practices, and (2) risk transfer through insurance.

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<sup>4</sup> Daniel Tyson, *Court Rules Energy Firm Enel Must Deconstruct 150MW Oklahoma Wind Farm*, ENGINEERING NEWS-RECORD (Jan. 15, 2024), <https://www.enr.com/articles/57982-court-rules-energy-firm-enel-must-deconstruct-150mw-oklahoma-wind-farm>.

<sup>5</sup> *Improving Recycling and Management of Renewable Energy Wastes: Universal Waste Regulations for Solar Panels and Lithium Batteries*, United States Environmental Protection Agency, (Dec. 14, 2023), <https://www.epa.gov/hw/improving-recycling-and-management-renewable-energy-wastes-universal-waste-regulations-solar>.

<sup>6</sup> *Fifth Unregulated Contaminant Monitoring Rule*, United States Environmental Protection Agency, (Feb. 1, 2024), <https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule#:~:text=UCMR%205%20requires%20sample%20collection,these%20contaminants%20in%20drinking%20water>.

<sup>7</sup> Russell Gold, *Thousands of Old Wind Turbine Blades Pile Up in West Texas*, TEXAS MONTHLY, (Aug. 24, 2023), <https://www.texasmonthly.com/news-politics/sweetwater-wind-turbine-blades-dump/>.

## Risk Management

Tactics within this solution include:

- **Project Selection:** Discernment in project selection is critical to mitigating risk. Firms should prioritize collaboration with reputable clients and consortia back by established entities, thereby minimizing exposure to thinly capitalized developers and first-of-a-kind projects.
- **Client Selection:** Evaluating the financial stability and industry expertise of prospective clients is essential for risk management. Partnering with well-established entities like major oil and gas corporations or renowned technology companies reduces the likelihood of encountering project-related challenges.
- **Contractual Considerations:** Assessing contractual terms is critical to mitigate risks associated with warranties, guarantees, and indemnification clauses. Firms must avoid overly broad indemnification agreements, performance guarantees, and warranties that broaden and heighten the standard of care. Firms should also include express language in their agreements that they are not responsible for construction means and methods.
- **Operational Risk Management:** Implementing robust risk management policies and procedures during project execution is crucial to minimizing on-site risks. These policies and procedures should include subcontractor vetting to ensure adequate training and indemnification provision, as well as adherence to best practices for operational safety and quality assurance.

## Insurance Risk Transfer

Tactics within this solution include:

- **Maritime Employer's Liability ("MEL") Insurance:** For firms engaging in offshore wind projects, it is important to secure MEL coverage. This policy provides essential protection for workers conducting operations at sea and ensuring compliance with federal maritime laws such as the Jones Act.
- **Project Specific Professional Liability ("PSPL") Policy:** In instances where a project's risk profile suggests the need to separate the insurance from the firm's standard professional liability policy, a PSPL policy can provide targeted protection. This approach safeguards the firm's overall professional liability insurance program while enabling participation in projects deemed to contain more risk.
- **Non-Owned Disposal Site ("NODS") Liability:** The disposal of renewable waste, such as decommissioned wind turbine blades, solar panels, and batteries, presents environmental liabilities with potential for pollution risks. Firms must ensure that they have adequate NODS coverage to protect against such risk. Failure to secure this insurance could leave firms vulnerable to legal consequences, especially if disposal sites become contaminated over time.

- **Regular Review of Professional Liability Policy Limits:** Engineering firms must periodically reassess their professional liability policy limits in light of evolving project challenges and industry trends. Collaborating insurance brokers during the annual renewal cycle ensures that coverage aligns with the firm's growth trajectory and project portfolio.



## The Future is Renewable

By creating a comprehensive approach that combines insurance risk transfer mechanisms with proactive risk management strategies, engineering firms can navigate the complexities of renewable energy projects with confidence, safeguarding their interests and fostering sustainable growth in the dynamic renewable energy sector.

### Let's Talk

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