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NATURAL RESOURCES

WEATHERING RENEWABLE ENERGY CHALLENGES

RENEWABLE ENERGY PROJECT RISK & INSURABILITY IN A TURBULENT INSURANCE MARKET

> *We are living through a once-in-a-generation energy transition, one that requires a clear-eyed view of the risks and opportunities presented by new technologies and applications being deployed in the shadow of significant climate-driven weather losses facing insurers.*
>
> *- Sara Kane, Power & Renewables Practice Leader*

Another year, another roller coaster for renewable energy deployment. The significant tailwinds offered by the implementation of the Inflation Reduction Act[1] and other regulatory incentives are up against the negative impacts of supply chain costs[2], inflation[3], labor force challenges[4], geopolitical forces[5] and rising interest rates[6]. In addition, there is another threat to successful project execution that deserves to have the industry's attention: insurance availability and cost.

Recent transactions have brought to the surface the potential mismatch between what renewable energy project stakeholders would like to procure in an insurance program and what the insurance market is willing to provide. By highlighting this challenge, we seek to encourage productive, creative solutions to the risk and insurability concerns that sponsors, insurers, and financing parties collectively face.

We are living through a once-in-a-generation energy transition, one that requires a clear-eyed view of the risks and opportunities presented by new technologies and applications being deployed in the shadow of significant climate-driven weather losses facing insurers[7]. How this growing risk is adapted to and allocated is essential to the continued success of the renewable energy industry. We are fortunate at CAC to have a dedicated team of specialist brokers who navigate these challenges on behalf of our renewable energy clients every day.

This is the first post of a four-part series that will highlight emerging risks and insurability. In this first installment, we provide the backstory on how we got here, and what makes this moment different from other challenges we have weathered in the past.

SOURCES:

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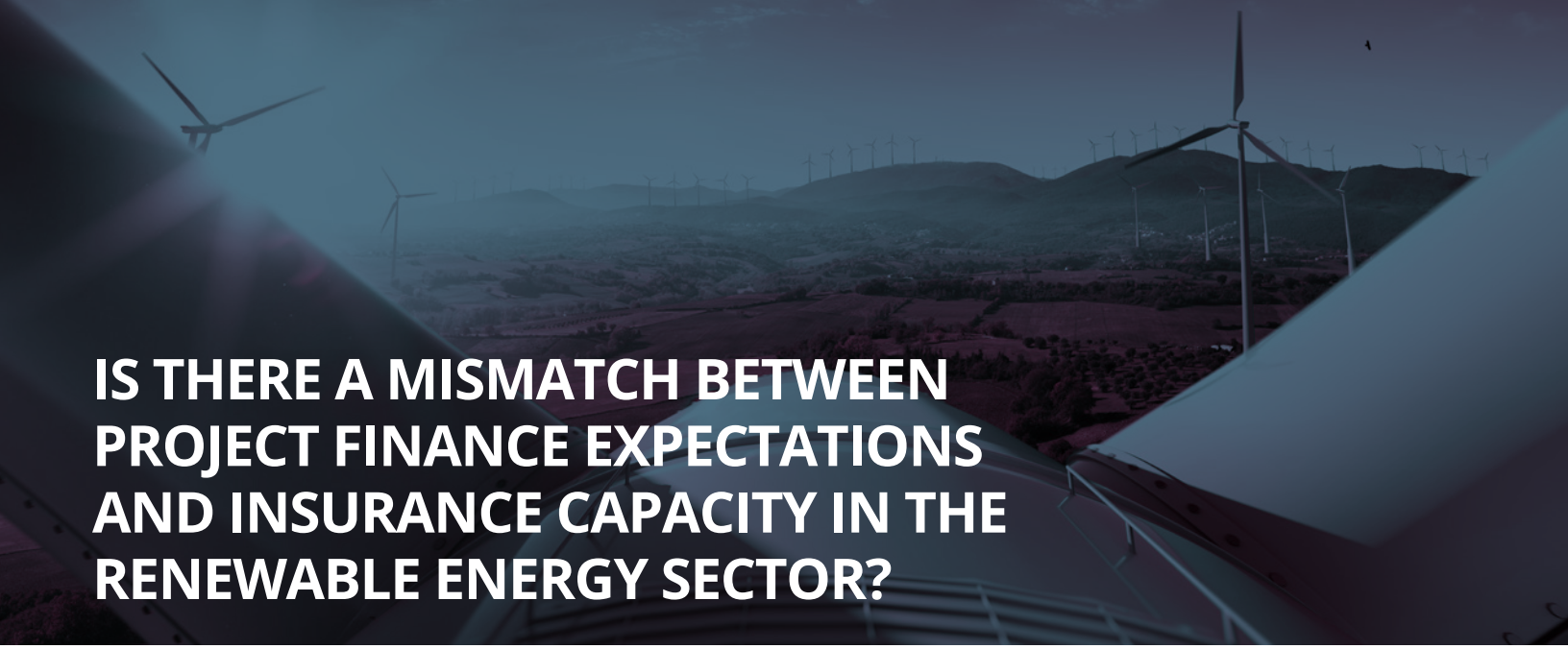

IS THERE A MISMATCH BETWEEN PROJECT FINANCE EXPECTATIONS AND INSURANCE CAPACITY IN THE RENEWABLE ENERGY SECTOR?

Government funding, institutional investor demand for low-carbon assets, and the growing relative cost-competitiveness of renewables have all contributed to robust interest in renewable energy project investment. North American investment[8] in renewables grew at a compounded rate of 6.6% per year between 2017-21, and battery energy storage accelerated by a blistering 45% per year (in contrast to a 5.0% annual decline in fossil fuel investment). Projects are getting larger, deploying new technologies, and moving into more marginal locations from a natural catastrophe standpoint at the same time that insurers are continuing to pay out claims for sizable natural catastrophe and equipment failure losses.

As a result, insurers today have more hard-earned knowledge of potential causes of loss and are using more underwriting scrutiny in choosing where to deploy their capacity. Our vantage point as a specialist insurance broker representing major renewable energy companies allows us a unique view into the current state of affairs.

Insurance is often considered a black box to those not in the market every day, but as one of the few significant annual operating expenses of renewable energy projects, we must pull back the curtain. It is imperative for our clients and their financiers to feel confident that we have achieved the best possible outcome available in the market, one that balances the different risk tolerances of various parties with cost.

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- Geraldine Kerrigan, EVP Power & Renewables Team

CURRENT CHALLENGES FOR RENEWABLE ENERGY INSURANCE PLACEMENTS

Challenging placement environment due to large renewable energy losses and broader energy industry restrictions

Extraordinary growth in the number, size, and type of projects challenges underwriters' ability to meet demand

Persistent uncertainty about what constitutes "best-in-class" risk mitigation (natural catastrophe resilience, fire protection, emerging technologies, OEM/contractor risks)

Expectations of project finance community versus what is achievable – at all or at commercial terms – in current market environment

SOURCES:

8. https://www.iea.org/reports/world-energy-investment-2022

A (VERY) BRIEF EVOLUTION OF THE US RENEWABLE ENERGY INSURANCE LANDSCAPE

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1980'S – EARLY 2000'S: Property & Casualty insurance was initially provided to the first US utility scale wind projects by Lloyd's of London insurance syndicates via managing general agents (MGA's).

2009: The American Recovery and Reinvestment Act was passed, paving the way for utility scale solar expansion. As wind project losses increased, solar was a welcome addition to the renewables mix, providing diversification to insurers' books.

2010: Additional insurers enter the market, enticed by investment in the growing renewables segment. This increase in capacity from insurers led to a very competitive market. Soft market conditions led to year-over-year pricing reductions and concessions on terms and conditions, which became the expectation of sponsors and project finance counterparties.

2010: Losses began to emerge which led many underwriters to determine market conditions were likely unsustainable. Some of the market-changing losses included:

- Battery energy storage fires
- Tornados
- Inland flood losses due predominantly to east coast hurricanes
- Large scale wildfires
- Construction losses due to contractor error, transit and construction defect

MAY 2019: A large hailstorm at a solar project in West Texas resulted in a $75 million paid loss, which resulted in a dramatic change to insurer appetite and available capacity.

MID 2019 – 2022: A challenging insurance market environment emerged, as evidenced by increased premium, increased deductibles and new sub-limits for natural catastrophe perils. These trends were compounded by the ongoing occurrence of large natural catastrophe and battery energy storage claims.

2023: Rapid technology advancement and a significant increase in size of utility scale projects require that the market continues to evolve.

A SEVERE SHIFT IN THE RENEWABLE ENERGY INSURANCE MARKET UPENDS DECADES OF EXPECTATIONS

The evolution of the renewable energy industry was marked by the ability to meaningfully transfer significant risk to insurers at rates that were reducing year-on-year, creating almost a decade of soft market conditions that led to expectations that such decreases, or at least low rates, would continue. The terms and conditions that were available during that time became codified in the insurance exhibits of project finance documents, requiring projects to continue purchasing at the prevailing terms and conditions for the life of the financing. However, in mid-2019, a large hail claim led to retrenchment from underwriters and a sudden reversal of the trend we had seen for the prior decade.

While this one hail event is not responsible for the entire market shift, it did mark an inflection point for more restrictive terms and conditions, such as significant sublimits and high deductibles for severe convective storms, which have become the new market standard over the past four years. Moreover, it was caused by a peril that hadn't been seriously studied or considered as a potential catastrophic risk to such projects, largely because utility-scale solar projects were only just beginning to be deployed in hail-prone geographies. Consequently, even insurers unaffected by this claim took notice. Overnight, they began to re-underwrite their books, creating a market environment where prices increased while terms and conditions became dramatically more restrictive-- especially with respect to hail and other convective storm perils. Many projects were rendered noncompliant with their project finance covenants overnight.

This change in the renewable energy property market happened in the context of a global hardening of the insurance market due to a variety of factors, including damaging large weather events, pandemic-related claims, cyber attacks and increasingly large verdicts awarded for liability claims. In general, insurance rates in 2019, 2020 and 2021 increased steadily and significantly for all types of assets and all lines of coverages. Typically, the insurance market is cyclical: when rates increase and underwriters push increasingly restrictive terms, additional insurance capital enters the space and creates competitive pressures that ultimately lead to softening market conditions, broader terms and price decreases.

However, the hardening the renewable energy property insurance market experienced was not just a function of a typical hard market cycle. Rather, 2019 was the beginning of a corrective market hiding in the broader hard market cycle. Given this, for the market to be sustainable, rates, terms and conditions are unlikely to revert to those seen prior to the 2019 hail event. This is especially true given continued significant claims activity that has served to further entrench underwriters' positions.

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WHERE DO WE GO FROM HERE?

The renewable energy sector is wrestling with a number of supply chain, financing and regulatory uncertainties, and insurance is another challenge to meet. It is our role as insurance brokers and renewable energy risk experts to procure insurance programs that meet project finance requirements at the best available price, and we do that every day. But more and more, there is a mismatch between what stakeholders would like to transfer to insurers, and what insurers are able to offer. There are two significant issues at play in the current environment: **1)** availability (*or lack thereof*) of insurer appetite for new technologies & projects highly exposed to natural catastrophe given recent loss experience combined with the coming volume of projects; and 2) how natural catastrophe limit requirements are agreed upon and procured. In the coming posts, we will delve into both issues, using real-life examples and offering potential areas for improvement.

As insurance brokers who care deeply about scaling renewable energy deployment, we feel it is imperative to illuminate these impending challenges and do so as early as possible in the project finance process. Historic expectations are no longer holding, but opportunities for creative problem solving do exist. By paying closer attention to insurance issues alongside other financial planning factors, renewable energy stakeholders can make investment decisions that are more resilient to emerging storms (figuratively or literally) in the skies above US power-generating assets.

WHAT'S UP NEXT?

In the next installment of this series, we will dive into one of two key timely issues – insurability and capacity limitations facing battery energy storage systems. In this post, we will discuss a blueprint for navigating this challenge.

In the third installment, we will spend time on a second pervasive issue – determining the appropriate amount of natural catastrophe coverage considered adequate by all project stakeholders, without being cost-prohibitive to the project. In this post, we will describe the current methods and offer some alternatives.

In the final installment, we will suggest our views on how to streamline the process to financial close with respect to insurance considerations, which are playing an increasingly important role in the path to financing.

CAC Specialty's Power and Renewables Team Is Here To Assist

As a specialty property and casualty insurance brokerage firm, we spend our days speaking with owners and operators of renewable energy assets about what they can expect out of the insurance market in terms of coverage and cost during both construction and operations. Our role is to find the most competitive insurance program for these assets that balances breadth of coverage with expense. We are a team of professionals that includes former risk managers from both renewable energy and traditional power companies, a former lenders' advisor at one of the preeminent lenders' advisory firms, loss control engineers, investment professionals and some of the most tenacious, dedicated insurance brokers in the business, who have spent their careers successfully navigating the insurance market for all types of power generating assets. In many cases, we act as outsourced risk managers to our clients who do not have dedicated insurance professionals on their teams, and we pride ourselves on our hands-on approach to helping our clients in all aspects of the insurance transaction, especially as it intersects with their project finance efforts.

We help our clients determine appropriate coverages, place those coverages in a constantly evolving insurance marketplace, and negotiate insurance concerns with their stakeholders. In parallel, we look to educate insurers about evolving areas of risk that our clients are facing and develop new tools to give the industry a clearer view of risk. Our work puts us across the table from underwriters with the goal of obtaining the best possible policy coverage, terms, and conditions for our clients' current and future projects. We also interact with financiers, typically via their insurance advisors, where we work on behalf of our clients to negotiate reasonable and customary insurance requirements for non-recourse project financings.

ERIN LYNCH
President, Natural Resources
erin.lynch@cacspecialty.com

SARA KANE
Power & Renewables Practice Leader
sara.kane@cacspecialty.com