

A close-up, low-angle shot of a white wind turbine's nacelle and blades, set against a dense, dark green forest. The lighting is soft, suggesting dawn or dusk, with a slight purple hue on the blades.

wtw | Willis

Renewable Energy Market Review 2026

Let's go →

Table of contents



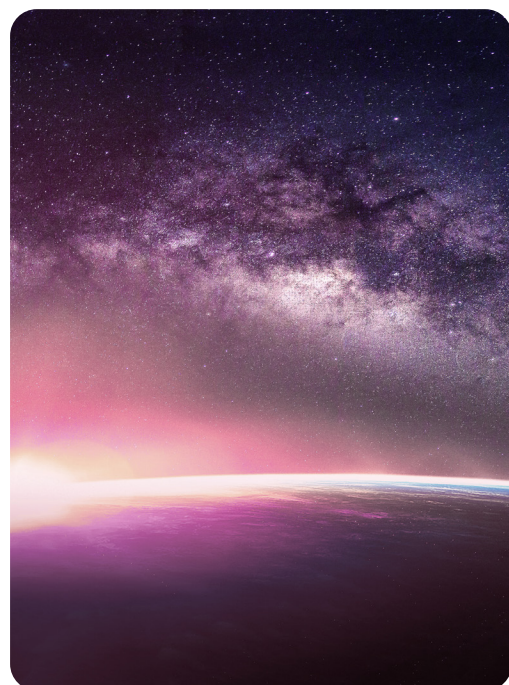
Introduction



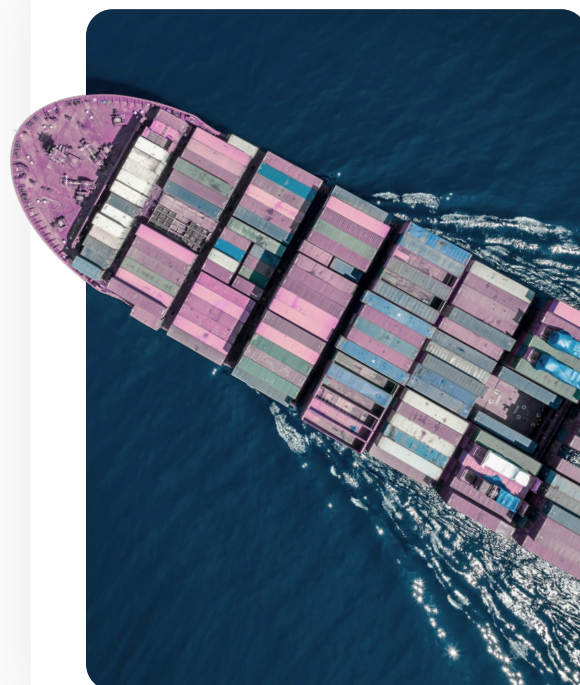
Competition heats up as rates cool in renewable energy insurance



Building energy security in a fragmented world: Why renewable energy is a strategic imperative



From breakthrough and bankable: Scaling high-potential renewable technologies



When energy security accelerates dependency: The Chinese OEM paradox



Key renewable energy hotspots

Welcome to the Renewable Energy Market Review 2026

The renewable energy sector is entering a new phase of accelerated growth, shaped by three converging forces: rapid technological innovation, intensifying global competition, and increasing geopolitical pressure on energy security.

Across the themes explored in this year's Renewable Energy Market Review — market trends, supply chain dynamics, and emerging technologies — a consistent theme emerges: while opportunities are expanding, so too are the complexities that will determine which projects succeed.

A softening but increasingly sophisticated insurance market

Abundant capacity and strong competition are driving a sustained softening phase for the renewable energy insurance market. Well-performing, data-rich risks are benefiting most, with premium reductions broadest for high-quality assets.

But this is not a simple buyers' market. Beneath easing rates lies a technically demanding underwriting environment. Insurers remain highly sensitive to evolving risk exposures, particularly natural catastrophes, asset scale, and increasing technological complexity.





As a result, competitive advantage is shifting toward those who can demonstrate strong engineering standards, robust maintenance practices, and credible, data-driven risk insights. The next phase of underwriting competition will be defined less by price alone and more by the quality of information, analytics, and long-term risk management strategies.

Energy security is reshaping global supply chains

Geopolitical volatility and the growing global megatrend of electrification are compressing timelines for renewable deployment, placing a premium on scale, speed, and delivery certainty. This has reinforced the central role of Chinese original equipment manufacturers (OEMs), which dominate global supply chains, particularly in solar and battery technologies.

This creates a structural paradox: while governments and organizations seek to diversify supply chains, the realities of cost, capacity, and manufacturing scale are deepening reliance on Chinese suppliers. Dependencies are not disappearing, they are becoming more embedded and less visible.

Critically, risk is shifting from isolated component failures to systemic dependency risks. Disruptions are more

likely to manifest as delays through logistics bottlenecks, certification challenges, or constrained installation capacity rather than physical damage.

For insurers and lenders, this reframes key questions concerning bankability and resilience. A spotlight is shining on recovery timelines, contingency planning, and the alignment between procurement, contracts, and insurance structures. Renewable energy companies that can clearly map and manage these dependencies will be better positioned to secure financing and optimize risk transfer.

Emerging technologies: Opportunities contingent on bankability

Breakthrough technologies such as green hydrogen, next-generation geothermal, and space-based solar are changing the narrative on what's possible. What was once science fiction is now science fact, but technological pathways are not guaranteed. The transition from innovation to infrastructure depends on demonstrating economic viability, operational resilience, and insurability.

- **Green hydrogen** shows strong potential in hard-to-abate sectors but faces cost challenges, regulatory uncertainty, infrastructure gaps, and safety risks that continue to constrain large-scale deployment

- **Next-generation geothermal** benefits from technological cross-over with oil and gas, improving scalability and cost efficiency, but remains constrained by subsurface uncertainty and high-severity risk exposure
- **Space-based solar** represents a new frontier, driven by demand from energy-intensive sectors such as data centers, but introduces entirely new regulatorspace and terrestrial domains

Across all three technologies, the role of insurance is evolving from a transactional requirement to a strategic enabler. Early integration of risk engineering, clear allocation of liabilities, and credible performance data will be critical to unlocking investment and scaling deployment.

Renewable energy in growth mode

Taken together, these insights highlight a sector moving beyond rapid expansion toward more disciplined, data-driven growth. Key themes include:

- **Resilience over pure diversification:** Dependencies (particularly in supply chains) must be identified, quantified, and actively managed rather than assumed avoidable

- **Data as a competitive differentiator:** High-quality risk data and analytics are becoming essential to securing favourable insurance terms and financing conditions
- **Bankability as the bridge to scale:** Emerging technologies will only succeed where risk, regulation, and commercial frameworks align to create investable propositions

While capital, capacity, and innovation are abundant, success will increasingly depend on execution: managing complexity, anticipating systemic risks, and aligning engineering, finance, and insurance strategies.

Companies that combine technical excellence with strategic risk management will be best positioned to scale sustainably, secure investment, and lead in the next phase of the global energy transition.

We hope you find the Review insightful. Please reach out to our global team with any questions.



Rob Hale

Global Power & Renewable Energy
Leader, Willis Natural Resources

rob.hale@wtwco.com





Competition heats up as rates cool in renewable energy insurance

A surge of capacity and intensifying competition are driving down rates across renewable energy insurance—but beneath the softer pricing lies a market still defined by technical complexity, evolving risks and the growing importance of high-quality data.

Key takeaways

- The renewable energy insurance market is softening. Most placements are oversubscribed and competitive pressures are driving rates down
- Capacity continues to trend upwards, with insurers showing appetite for both lead and follow positions
- Underwriters remain sensitive to the sector's limited loss history and fast-changing technology
- Key trends to watch in 2026 will be natural catastrophe exposures and equipment complexity: strong engineering insights will be key to securing optimal renewal terms

Market backdrop

The headline trend for renewable energy property damage insurance market: softening. Against a backdrop of strong sector performance, many insurers are looking to diversify their portfolio by broadening their participation in renewable energy. In response to new market entrants and the establishment of auto-follow facilities, markets are now competing to meet their targets by increasing orders on incumbent and new business.

As new syndicates add another layer of pressure and capacity continues to flood into the renewable energy sector, insurers are jostling to remain relevant with appetite to lead and follow, and experienced follow markets are showing strong ambitions to take leading positions. Competition is growing and rates are falling. The London market is trying to hold rank on technical discipline, particularly on coverage, but differences across technologies and regions are creating cross currents.

In practice, this is pushing down rates and improving terms for accounts that present well-engineered risk information, particularly those with strong maintenance regimes, credible loss controls, and high-quality data.



A TREND TO WATCH

A majority of insurer portfolios have a

~50%

U.S. weighting, and many are looking to diversify their account base internationally.



This is good news for project developers and asset owners, but it does not mean the market is easy to navigate. Renewable energy projects are capital intensive, highly technical and often concentrated in remote or weather-exposed locations. The insurance market is more flexible on rate, but remains sensitive to underwriting quality.



John Abraham, Deputy Team Leader & Director, Global Renewable Energy, Willis Natural Resources

But the softening is not a permanent reset. The claims history for many renewable technologies is still relatively short compared to traditional oil, gas and power counterparts, making loss modeling less mature than in long-established property classes. There's room for competition, but the market is keeping a rein on any drastic freefall.

Three key forces to watch: Property damage exposure in renewable energy is being shaped by three key forces: **technology**, **weather**, and **scale**. Technological advances can improve efficiency, but they also introduce new risks of non-performance or failure, especially where components are highly specialized or rapidly evolving. It's now been [six years](#) since the insurance industry last experienced a quiet year for natural catastrophe, meaning natural catastrophe exposures remain a major concern for underwriters. Meanwhile, hybrid assets, co-located storage, and larger multi-site platforms create new aggregation and dependency issues for insurers. A single event can cascade impacts across multiple revenue streams, multiple technologies, and multiple layers of coverage, which raises the stakes for good risk engineering.

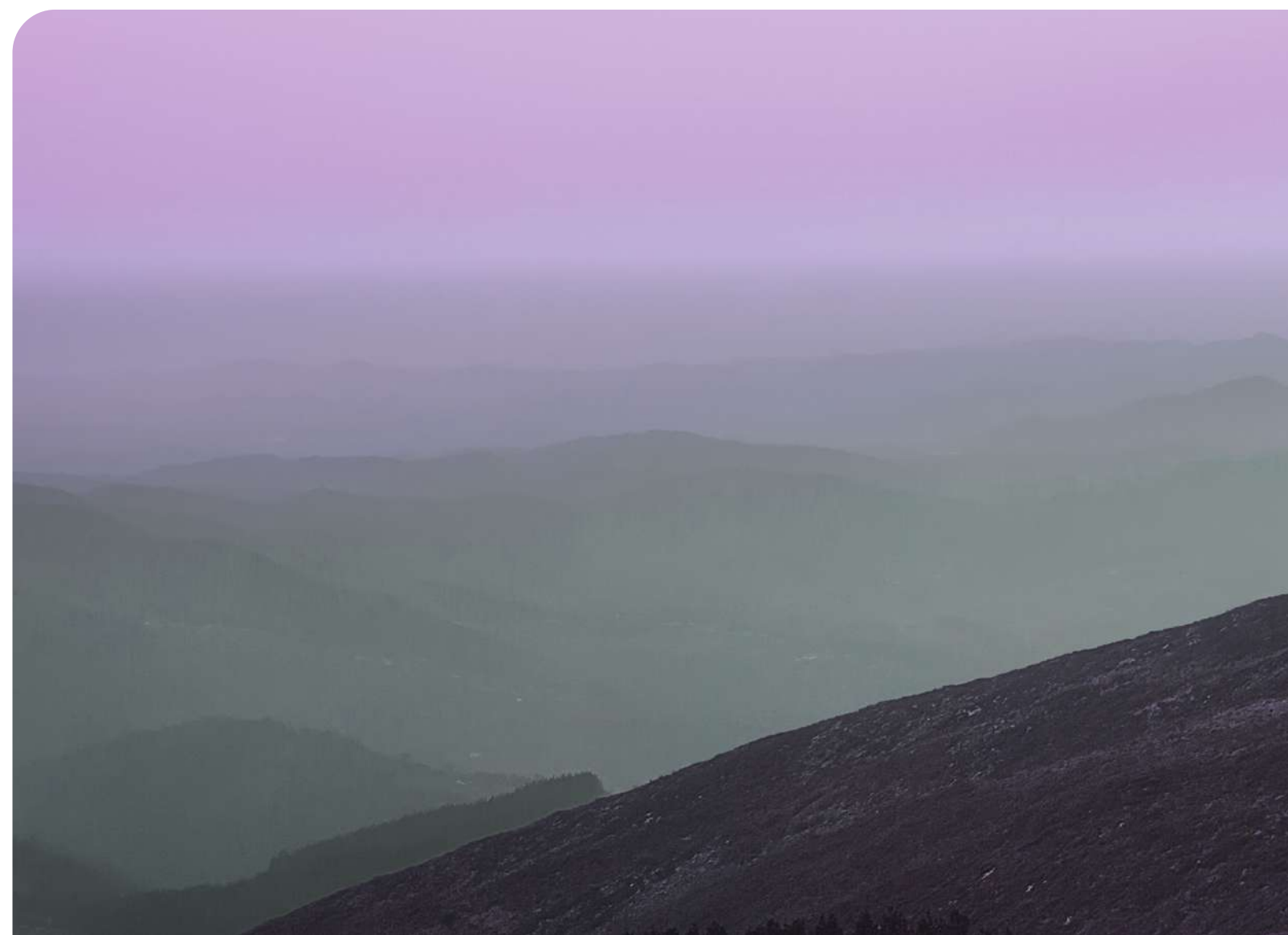
Rates are easing

The year to date has not been completely devoid of losses. A number of natural catastrophe (nat cat) losses are currently being played out in the market, with hail and severe convective storm (particularly in the U.S., Saudi Arabia and Australia) events clustered in the first quarter of 2026. Despite these cat-related events, losses are not expected to change the pace or direction of the softening market. Nat cat losses have been shared across a large market panel, meaning each participant has received a smaller percentage share of the loss. Cover for nat cat remains available for both primary and secondary perils, with some limits being pushed.

While projects are increasing in size and competitive pressures prevail, market conditions are likely to remain on a downward trajectory.

Since the distinction between cat- and non-cat-exposed business is less relevant for 2026, pricing trends indicate:

- 1 **Tier 1**
(well-engineered, clean, large-income accounts):
Reductions of between 20% - 30%
- 2 **Tier 2**
(clean but lower premium income):
Reductions of up to 10% - 15%
- 3 **Tier 3**
(loss-affected programs):
Renewal will depend on the quantum of the loss





A TREND TO WATCH

Markets are keen to establish longer-term relationships with key clients, and low claims bonuses (LCBs) and long-term agreements (LTAs) are making a resurgence. Agreements are typically resulting in discounts between

5%-10% (LTA)

for year two, and LCBs collected up front at inception subject to strong performance.



Overall, combined ratios were maintained with average of sub-90%, showing a good average account performance. With an overcapitalized market, we expect further softening, increasing quarter by quarter. Reductions are available, and exploring opportunities such as soft market credits can be a valuable addition to a robust risk program in the year ahead.



Dillon Patel, Head of Broking
GB, Global Renewable Energy,
Willis Natural Resources

Excess layers are also becoming more competitive as the numbers stack up: the percentage of loss deductibles available vs the percentage of the total insurable value.

Beyond pricing: The next phase of underwriting competition

While underwriters will remain focused on the technical aspects of risks, the volume of projects is becoming the key challenge for all insurers to navigate. Increasingly, insurers are looking to manage aggregation by line size and focusing on a diverse spread of risk.

Insurers value data

In this softening market, insurers are rewarding accounts that demonstrate discipline. Strong engineering information, robust maintenance records, sophisticated catastrophe analytics, and clear scenario-based modelling all help support optimal terms in negotiations. The most attractive placements are likely to be those where insureds can demonstrate that asset performance and loss prevention are being managed proactively, not reactively.

Insurers value credible data on component reliability, defect management, environmental exposure, and project resilience.

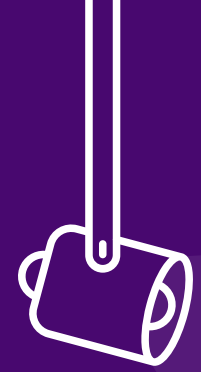
For brokers and insureds, the message is simple: pricing power may be shifting toward buyers, but only the best-prepared buyers will have scope for strong negotiations.



We are also seeing coverages such as LEG 3 (sub-limited) and broader series loss clauses becoming available. It’s a positive time for insurance buyers to look to align 100% of placement to more favorable terms where there may have been previous misalignment, but also look to broaden coverage where possible.



Jonny Martin, Director, Global Renewable Energy, Willis Natural Resources



A spotlight on international liability

The international liability market in London has continued to soften following a sustained period of limited loss activity, new capacity entering the London market and increasingly aggressive regional insurers. Renewable energy remains a target sector for both new and existing insurers as they continue to seek to diversify their portfolios.

Competition remains intense, driving rates down

The focus on renewable energy is driving greater competition and downward pressure on rates with mid-single digit reductions becoming possible for sought-after accounts.



That said, the market remains technical, with the specific characteristics of each risk, such as the type of renewable energy asset, location, coverage requirements, and loss history, being the primary driver in the ability to create competition and secure potential premium reductions.



Amelia Backhouse, Director,
Liability, Willis Natural Resources

International liability market trends: By technology



Offshore wind

As energy companies diversify to meet decarbonization targets, offshore wind remains an area of growth with continued project scaling and construction activity.

Offshore wind placements with little to no loss activity are experiencing the most pronounced rate reductions per megawatt (MW), largely due to the absence of wildfire or bushfire exposures – an increasingly material concern for underwriters, particularly in Australia, the U.S., Canada, and parts of Southern Europe.

While operational placements are seeing the largest rate reductions, construction projects remain technically priced due to complexities around third-party crossing exposures, vessels, and substation interactions.

Scrutiny remains for newer technologies. Floating wind brings perceived marine exposures and drone use by contractors is putting a spotlight on peripheral coverages.



Rooftop solar

Rooftop solar exposures continue to face the most underwriting scrutiny, driven by the associated potential fire risks and large-scale losses. Installations on third-party industrial assets or factories are under particular scrutiny due to the associated fire risks and subsequent financial losses. As a result, there is increased underwriting focus on understanding the nature of any fire suppression measures in place, contractual liabilities and quantifying the potential third-party exposures with the provision of high-quality risk information remaining key to unlocking capacity.

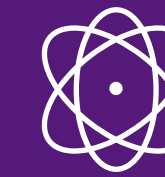
Although the market continues to soften, underwriting discipline around coverage remains. There's a greater flexibility to negotiate price than terms and conditions. Even with the provision of extensive risk information, exclusions for failure to supply, bushfire/wildfire and PFAS are still commonly applied on many renewable energy placements.



Battery energy storage systems (BESS)

BESS has a critical role in long-term grid and dispatch stabilization in a clean energy future. In a future where demands from power-intensive data centers are scaling exponentially, BESS is at the center of the energy transition.

But BESS technologies present new risks for liability insurers, particularly thermal runaway, which can lead to intense fires and subsequently, third-party damage or bodily injury claims. Liability insurers remain cautious with a focus on third-party surrounding property, system design, fire suppression measures and ensuring BESS have been tested in accordance with rigorous and recognized industry standards.



High-potential technologies

As companies continue to diversify and transition towards clean energy, innovation across hydrogen, tidal energy, carbon capture and waste-to-energy continues to evolve. Underwriters continue to monitor the changing risk exposures. There's a prevailing narrative across the market that rating levels need to be re-calibrated in order to adequately price for the liability exposures these technologies can present, particularly in the case of hydrogen risks.

Unlike other classes of insurance, provided a liability placement is suitably designed and placed with sufficiently agile insurers, renewable energy assets can be integrated into broader liability programs even if they deviate from a company's core operations.

Looking ahead: Property and liability

Large-scale development of new battery energy storage systems (BESS) construction in North America, Europe and Middle East, alongside the boom of solar projects in North America, the Middle East and Asia, mean the outlook is positive for the sector. For insurance buyers, competitive capacity should continue to support renewables buildout, and insurers are likely to keep courting this sector as a growth opportunity. But the market's long-term health will depend on data-backed engineering and analytics to help underwriters make informed decisions about cost and coverage.

For renewable energy asset owners and project developers, this is a good time to secure broader and better-priced cover, but not a time to relax diligence. For insurers, the opportunity is to grow with the sector while preserving underwriting quality around property damage, catastrophe accumulation, and emerging technology risks. The winners will be those that combine scale with selectivity.

Partnering with a sector-specialist broker can help to unlock data-driven insights on new exposures, enabling project developers and owners to approach underwriters with clear and insightful risk information.

Contact our renewable energy team to find out more about building an optimal risk strategy:

Property



John Abraham

Deputy Team Leader & Director,
Global Renewable Energy, Willis
Natural Resources
john.abraham@wtwco.com



Jonny Martin

Director, Global Renewable
Energy, Willis Natural Resources
jonny.martin@wtwco.com



Dillon Patel

Head of Broking GB, Global
Renewable Energy, Willis
Natural Resources
dillon.patel@wtwco.com

Liability



Amelia Backhouse

Director, Liability,
Willis Natural Resources
amelia.backhouse@wtwco.com



Raj Vora

Associate Director, Liability,
Willis Natural Resources
raj.vora@wtwco.com



Building energy security in a fragmented world:

Why renewable energy is a strategic imperative

Escalating geopolitical tensions are no longer a background issue or renewable energy companies. Supply chains are increasingly exposed to disruption, reinforcing both the urgency and strategic value of energy security through diversified and renewable fuel sources.

Continued conflict, trade fragmentation and economic nationalism are creating tides, with impacts rippling out across the entire renewable energy value chain:

- **Critical mineral supply disruption:** Components for solar panels, wind turbines, and battery storage systems depend heavily on rare earth minerals and processed materials concentrated in a small number of countries. Export restrictions and trade barriers are lengthening lead times and inflating costs
- **Manufacturing concentration risk:** A significant proportion of solar PV modules and wind components are manufactured by OEMs in a limited number of geographies, with China remaining the dominant manufacturing power. Diversification of supply sources is happening, but slowly

- **Rerouting shipping and logistics:** Rerouting of cargo around conflict zones is increasing transit times and freight costs, affecting project delivery schedules and triggering contract penalties
- **Ongoing regulatory and policy uncertainty:** Trade policy shifts, tariffs and changing government incentive structures are destabilizing appetite for new projects. For financiers and project developers, there's increasing uncertainty for new project development

What this means for renewable energy companies

Renewable energy project developers and owners should anticipate heightened exposures across several areas:

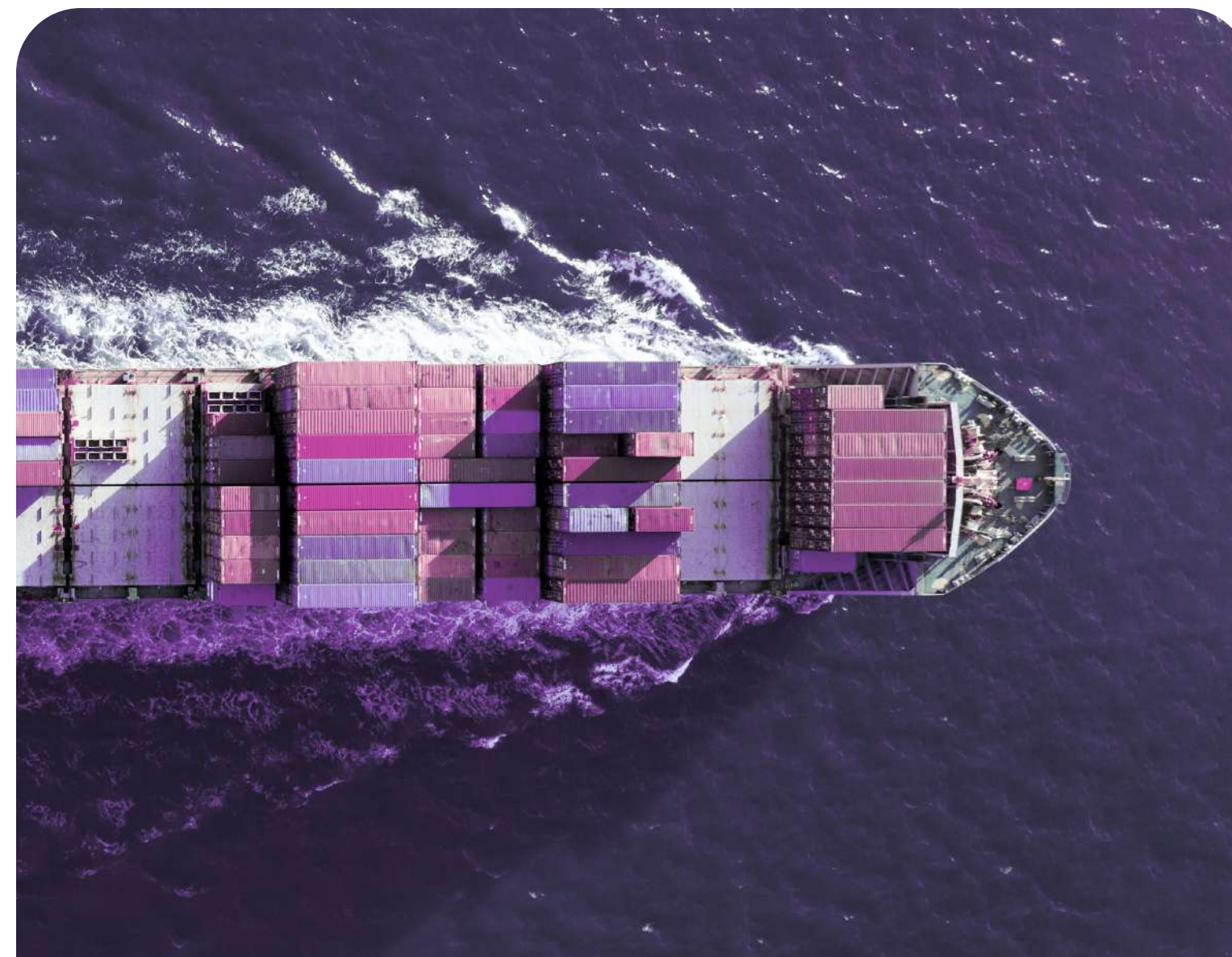
- **Project delays:** Supply chain bottlenecks and logistical issues
- **Cost overruns:** Inflation in material costs, manufacturing costs and transportation costs
- **Counterparty risk:** Supplier insolvency or contractual non-performance
- **Political risk:** Expropriation, sanctions, or abrupt regulatory shifts that can render projects no longer commercially viable

- **Business interruption:** Disruption to construction and operational phases of a project, delaying projects and disrupting cashflow

The strategic case for renewable energy is building

Paradoxically, these same geopolitical pressures are reinforcing the long-term case for accelerating the energy transition. Diversified clean energy capacity is one of the most effective hedges against geopolitical energy shocks — the kind of price spikes and supply disruptions that fossil fuel dependency creates.

Renewable generation is projected to grow by 8% per year through 2030, and investment appetite remains strong, but companies' risk profiles have fundamentally shifted.



How to build a future-ready supply chain risk strategy

Geopolitical trends are changing, and so are exposures. Insurance is a critical component of a robust risk strategy, but project developers and owners should consider:

1. **Map supply chain risks:** Sophisticated geospatial risk tools overlay your global footprint with real-time insights and predictive modelling to deliver a clear view of your risk. These perspectives on global perils enable your company to identify potential threats to its long-term success
2. **Stress-test your insurance program:** By running scenario models, project owners and operators can fully understand the most likely and most severe loss scenarios, helping decision-makers ensure critical dependencies are fully reflected in loss estimates, and optimal risk decisions are made
3. **Apply these findings to generate the most efficient risk strategy:** These values feed into actuarial risk optimization studies, producing full risk distributions that balance retention and transfer, including limit adequacy and efficient pricing

Key solutions across the risk and insurance markets are available to help build resilience through volatility:

Contingent business interruption (CBI): Standard property policies may not capture losses arising from supplier failure or component delays caused by geopolitical events. CBI extensions can be a valuable solution when third parties are vulnerable.

Construction and delay in start-up (DSU): Project delays caused by equipment shortages or logistics disruption can generate significant revenue losses. Ensuring DSU limits and waiting periods reflect current lead times, which in some categories have extended materially, can help to stabilize the balance sheet.

Political risk and trade credit: If components are sourced internationally, or the supply chain crosses emerging markets, political risk insurance can protect against expropriation, import/export restrictions, and currency inconvertibility.

Asset and operational coverage: As assets grow in value and complexity, policy limits, sublimits, and exclusions should be reviewed to ensure they remain adequate, particularly where replacement parts face long procurement timeline.

The strategic outlook

Despite near-term volatility, the long-term fundamentals supporting renewable energy remain strong. With energy security now a central driver for the clean energy transition alongside decarbonization, the case for renewable energy is building. To capture emerging opportunities, ensure renewable projects have a solid foundation. Contact our team for further information to build resilience through volatility.



Rob Hale

Global Power & Renewable Energy
Leader, Willis Natural Resources

rob.hale@wtwco.com

From breakthrough and bankable:

Scaling high-potential renewable technologies



There is this kind of competition now for new sources of energy - the market is going to select which one has the most efficient, the cheapest, the easiest to execute on.

– **Denis Bensoussan**, Head of Space, Beazley

Hydrogen hubs, next-generation geothermal and space-based solar are redefining what's possible in clean energy. But to move from invention to investment, only technologies that can prove economics, resilience and risk control will earn their place in tomorrow's energy system.

Green hydrogen

Lessons learned: The role of hydrogen in driving project economics

The hydrogen story is no longer about whether the technology matters, but where it can be deployed safely, with managed supply-chain exposure and at an affordable cost. Strongest growth potential lies in chemical feedstocks such as ammonia and methanol, alongside applications across oil refining, steel manufacturing, long-duration grid balancing and jet aviation.

But the market is also being shaped by geopolitical pressures which has pushed energy security to the top of the agenda. Green hydrogen, as an energy carrier, could step forward in the energy mix as alternatives and diversification become strategic priorities. India, China, Australia, Oman, Egypt, Saudi Arabia and Morocco are all emerging as important centers of green hydrogen project development.

The current focus is on project feasibility. Renewable energy generation costs (LCOE) are falling, electrolyser efficiency is improving and Chinese manufacturing scale is reducing capital costs, leading to pilot projects advancing for low-carbon steel, shipping and mobility. Though challenges persist, industrial-scale ammonia

cracking is another major step, strengthening the case for hydrogen trade by allowing ammonia to act as a transport vector. Hydrogen fuel cells also represent encouraging innovation by generating electricity through an electrochemical reaction between hydrogen and oxygen. The sector is maturing, but primarily in specific applications where the full value chain can be aligned.



These are not reasons to avoid the technology, but they do require robust risk engineering, stronger global standards, and more mature governance. Insurers and lenders will look for workable project economics, credible evidence of design integrity, maintenance regimes, contractor competence and emergency planning before capital can flow freely



Francesca Hallam, Account Executive & Broker, Renewable Energy, Willis Natural Resources

Risks are impacting viability

For risk managers, project owners and developers, however, both near-term and longer-term challenges remain. Challenges are not only technological:

- Green hydrogen remains significantly more expensive than fossil based hydrogen, limiting investor appetite
- Regulatory uncertainty and inconsistent policy frameworks create difficulty in securing offtake agreements which underpin project economics
- Infrastructure gaps persist across pipelines, storage, ports and refueling networks
- Skills shortages and supply chain constraints for critical components continue to slow deployment
- Safety is a major risk: hydrogen is highly flammable, prone to leakage and can cause material embrittlement in pipelines and storage systems
- Limited operational history and the prototypicality of technologies also creates insurance underwriting and bankability challenges

The commercial viability of green hydrogen at scale will depend on addressing these challenges and managing the contractual framework through smart risk allocation.

De-risking deployment

Making strides will involve focusing on:

- At the project level, [performance guarantees](#) (which can provide a financial backstop against technology non-performance), can help to build investor confidence as the technology scales up
- OEM partnerships will be critical, alongside sound contingency plans which could involve equipment redundancy pools and other risk mitigation strategies
- Safety management systems that are designed for scale will be imperative, and risk engineering will have a role in assessing the risk controls and identifying exposures, backed by data

Ultimately, the focus is likely to be on deploying green hydrogen to decarbonize existing demand and prioritize hard-to-electrify sectors. Growth depends on sustained cost reductions, clear prioritization of high value applications, and stronger demand side drivers.

Above all, creating bankable demand through structured offtake agreements and shared risk mechanisms will help unlock finance, improve insurability and accelerate commercial deployment at scale.

Geothermal

Geothermal energy is moving from a niche renewable into a scalable, strategic power source. Next-generation approaches aim to expand the addressable resource base and de-risk key subsurface constraints.

Innovation is opening doors

Unlike traditional hydrothermal plants that are limited to naturally hot, permeable reservoirs, enhanced geothermal systems (EGS) engineers underground fracture networks to extract heat from hot, dry rock. This breakthrough expands geothermal's geographic reach into regions such as Europe and much of North America, delivering low carbon, dispatchable power where natural geothermal reservoirs previously were not viable.

Meanwhile, closed loop systems are gaining traction. Closed-loop systems function as 'underground radiators', circulating fluid through sealed pipes without relying on natural permeability. This helps to eliminate subsurface uncertainty, providing a more predictable alternative to other geothermal models.

Project cost and scalability are also improving. Processes such as horizontal drilling, hydraulic fracturing, and fiberoptic sensing were pioneered in the traditional oil and gas sector, but these processes are being applied to

geothermal, reducing drilling risk and enabling deeper, more productive wells. It's out with the old and in with the new, as depleted oil and gas wells are showing promise. **"[Converting wells](#) eliminates the need for new drilling... [which] constitute a significant portion (over 50%) of geothermal project expenses. Repurposing existing wells eliminates these costs."**



Drilling accounts for over half of geothermal CAPEX, reusing existing wells and surface infrastructure can materially improve project economics.



Justin Lewars, Account Executive & Broker, Renewable Energy, Willis Natural Resources



Key risks are keeping a rein on rapid deployment

Despite its promise, geothermal can bring complex risks:

- Finding heat in more traditional wells is not guaranteed
- Subsurface uncertainty remains a core challenge, particularly in EGS where fracture behavior and pressure regimes are difficult to predict
- Well-control incidents can occur, including uncontrolled releases of superheated steam or fluids, which are safety and environmental hazards
- High loss severity is a concern for insurers and lenders. Complex failures are likely to require specialist intervention which could increase costs and delays, impacting project feasibility
- Environmental liabilities arise from the potential release of mineralized brines or impacts on groundwater
- Induced seismicity and regulatory shutdown risks can disrupt operations without clear physical damage triggers

While geothermal has learned many valuable lessons from the oil and gas sector, oil and gas risk frameworks don't capture the full scale of the complex and interconnected risk network for renewable energy companies.

Insurance is a strategic enabler

To unlock geothermal at scale, project developers need to use insurance as a strategic tool, not a late stage requirement.

- **Align risk, design and insurance earlier in the project lifecycle:** Embed insurer and risk engineering input at the planning stage to improve well design, pressure modeling, contingency planning and contractor selection. Early alignment helps reduce loss frequency and severity, while enabling insurance wordings (well control, redrill, mitigation costs) to be structured around the actual geothermal risk profile rather than adapted oil and gas assumptions
- **Improve clarity and consistency in risk transfer frameworks:** Develop more specific geothermal insurance strategies by clarifying policy triggers, addressing gaps (moving away from oil and gas wordings) around subsurface events and induced seismicity, and linking coverage more clearly to prevention and mitigation measures. Greater transparency and consistency in wordings increase insurer confidence, supports capacity deployment and ultimately lowers the cost of risk over time

Geothermal's growth will depend not just on technology and policy, but on how effectively developers de-risk the subsurface through smarter engineering and innovative insurance solutions.

Space-based solar

“Earth looks like a finite environment where competition is too acute”, says Bensoussan, and in 2026, space-based solar power (SBSP) moved from science fiction to science fact. Social media platform giant, Meta, has reached an agreement with SBSP start-up, Overview Energy, to secure early access to [up to 1 gigawatt \(GW\)](#) of space-based solar capacity with demonstration targeted for 2028 and commercial delivery by 2030. This agreement represents a major step forward for the technology, reframing SBSP as a potential power purchase agreement (PPA)/offtake-backed infrastructure class.

Meta’s deal, plus [Aetherflux’s orbital data-center concept](#), suggest SBSP may initially be pulled by large scale demand for clean power rather than by traditional utility procurement. Power-hungry artificial intelligence and data infrastructure owners are opting for low-emissions sources of electricity to meet company climate goals: data centers will remain at the forefront of deployment for the foreseeable future.

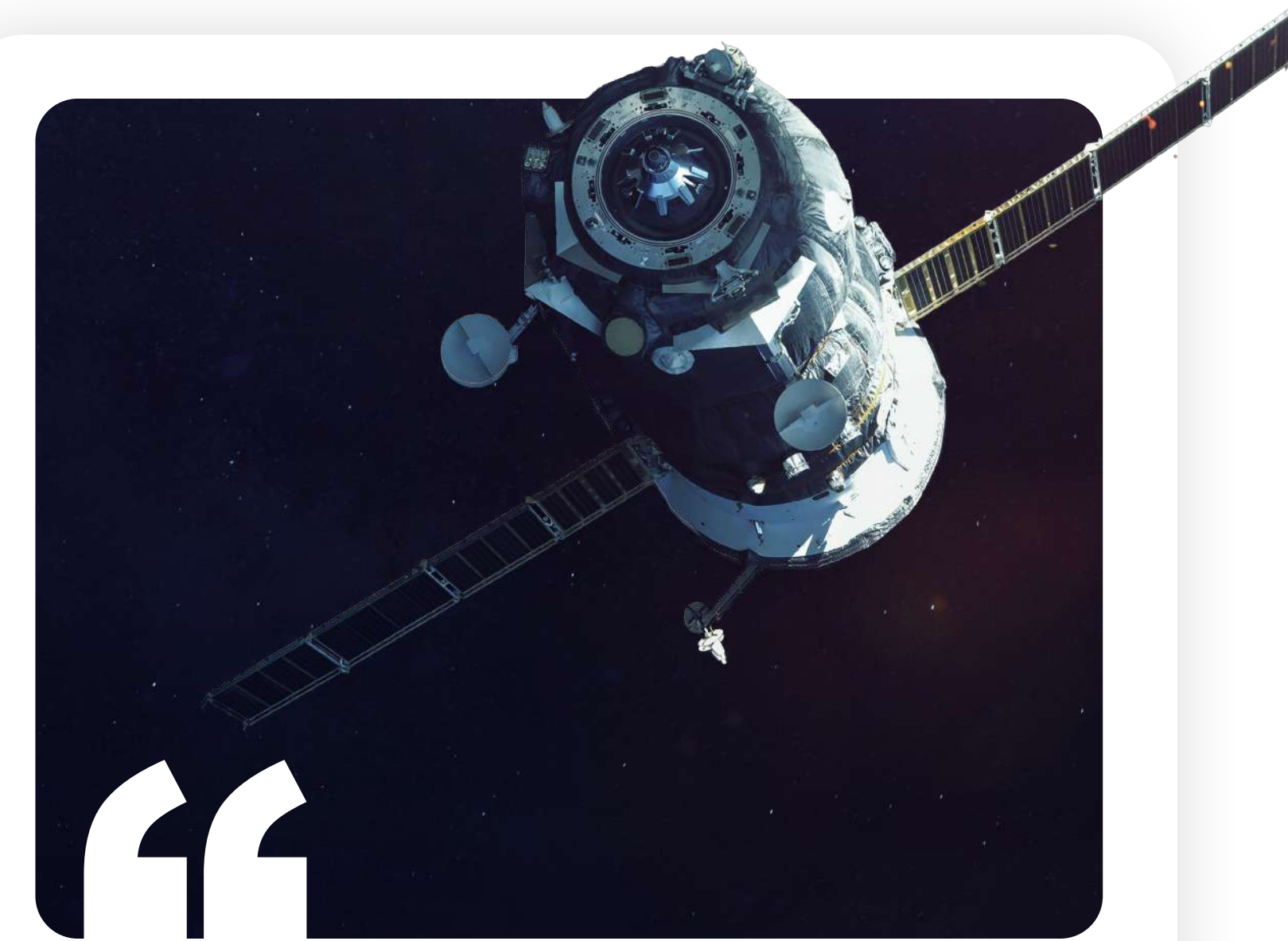
Since SBSP will have access to 24-hour light, SBSP could reduce storage dependence. But this will depend on the probability of the technology. [A 2025 European modelling study](#) suggested SBSP could materially reduce system costs and battery requirements in a decarbonized grid, but the study also flagged key risks.

Risk follows innovation

SBSP will sit across energy regulation, space licensing, spectrum allocation, aviation safety, environmental permitting, cyber security and national-security scrutiny. For project developers and operators, this creates potential delay-in-start-up, denial-of-access, regulatory change and liability exposures that conventional renewables policies do not properly address.

Wireless power transmission is now the major technology battleground. UK Space Solar’s 360-degree wireless transmission work, and Overview’s moving-platform power-beaming test make beam control, misdirection, atmospheric loss and receiver performance tangible underwriting topics rather than abstract concerns.

As the technology embarks on commercial scale up, launch, deployment, in-orbit assembly, power beaming, ground receiver assets, grid connection, orbital congestion and revenue interruption will all introduce intrinsic risk profiles that may need separate but interlocking covers. This will likely create a need for a multi-disciplined approach from the insurance market and new ways of thinking about the risk. In response, the insurance market conversation is shifting from ‘can this be insured?’ to ‘which phase carries the risk? and ‘how far do existing solutions support this technology?’ According to Denis Bensoussan, “the electrical connection, the pointing and the stability of the platform are going to be key”.



The needle is moving, but the insurance market is being challenged to match the scale and pace of technological innovation.



Matthew Bailey, Account Executive & Broker, Renewable Energy, Willis Natural Resources



Making the leap into scalability

The market should push for staged de-risking before commercial scale. Insurers should require demonstrator data, independent beam-safety validation, debris/collision modeling, cyber resilience, contractual allocation of space and ground liabilities, and clear revenue-loss triggers before treating SBSP as a conventional renewable energy asset.

The path from innovation to infrastructure is rarely linear. It demands clarity, coordination and confidence across the entire value chain. As clean energy technologies move from prototype to portfolio, the role of the insurance broker becomes increasingly pivotal—linking innovation with capital and risk transfer. By bringing together developers, financiers and insurers, brokers help shape solutions that make projects both insurable and investable. With specialist guidance, developers can design risk strategies built for resilience, unlocking the confidence needed to scale.

To find out how specialist risk advisors and brokers can help you build a future-ready risk strategy to scale these technologies, contact:



Matthew Bailey

Account Executive & Broker, Renewable Energy, Willis Natural Resources

Matthew.Bailey@wtwco.com



Francesca Hallam

Account Executive & Broker, Renewable Energy, Willis Natural Resources

Francesca.Hallam@wtwco.com



Justin Lewars

Account Executive & Broker, Renewable Energy, Willis Natural Resources

Justin.Lewars@wtwco.com

When energy security accelerates dependency:

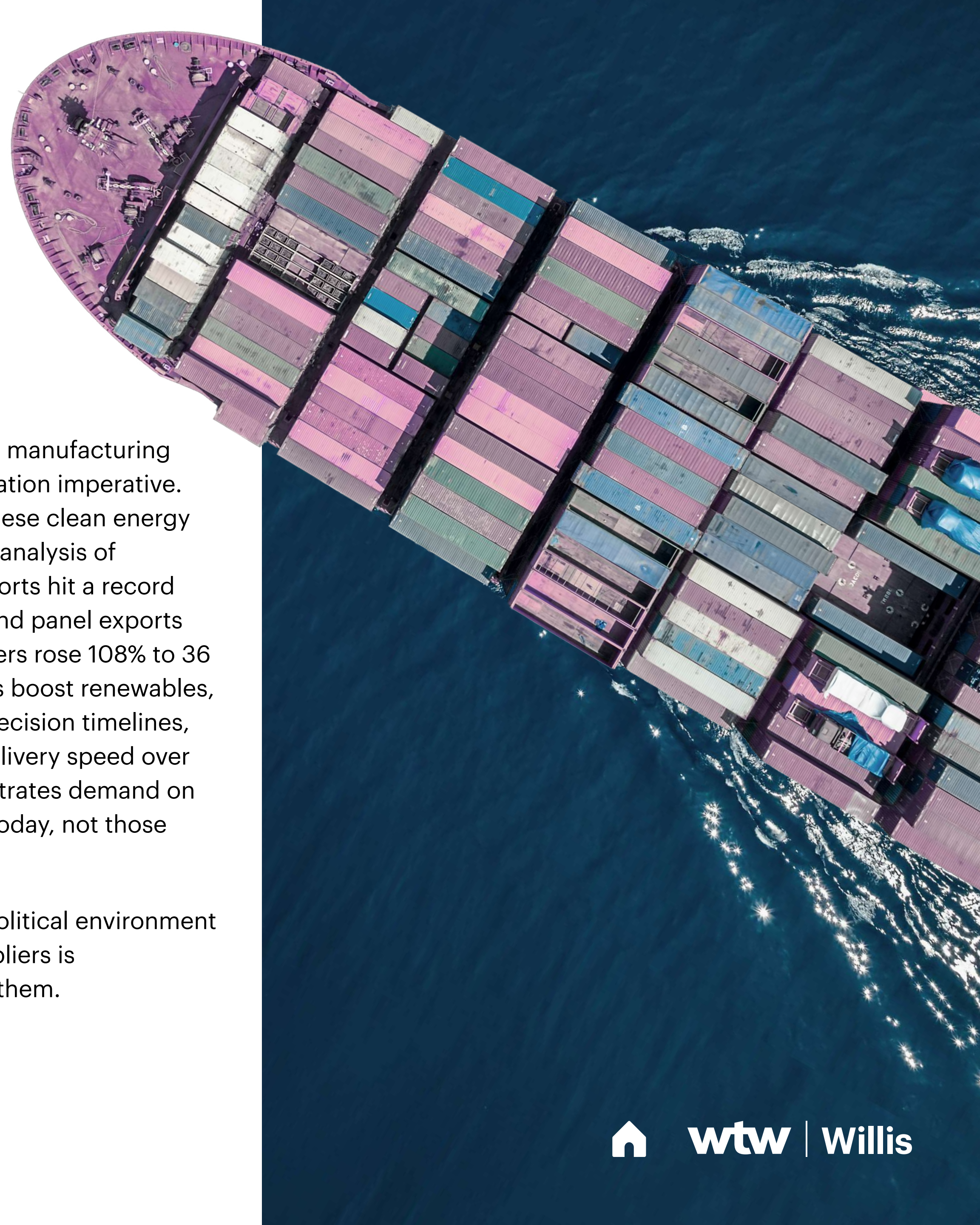
The Chinese OEM paradox

Record-breaking investment, accelerating policy support, and rapid technological innovation are propelling the renewable energy sector into a new era of growth. Underpinning this transformation: Chinese original equipment manufacturers (OEMs).

The conflict in Ukraine, tensions in the Middle East and disruption to shipping routes have reinforced a simple conclusion: for many economies, energy security increasingly depends on the speed of electrification. Solar, batteries, grid equipment and electrified infrastructure are no longer optional decarbonization tools; they are central to protecting revenue, securing supply and maintaining competitiveness.

Chinese OEMs are at the core of global manufacturing capacity to fulfil the global decarbonization imperative. In March 2026, combined sales of Chinese clean energy parts and products totaled [\\$26 billion](#), analysis of [Chinese customs data](#) shows solar exports hit a record 68 gigawatts (GW) in a single month, and panel exports rose 91% to 32 GW, while cells and wafers rose 108% to 36 GW. The lesson is not simply that crises boost renewables, it is that energy security compresses decision timelines, and prioritizes availability, scale and delivery speed over diversification. In practice, this concentrates demand on the suppliers that can deliver at scale today, not those that might diversify supply tomorrow.

This creates a paradox: the same geopolitical environment that increases scrutiny of Chinese suppliers is simultaneously deepening reliance on them.





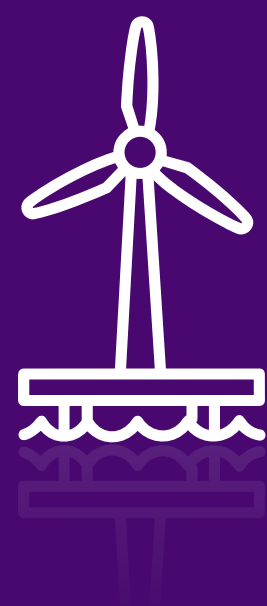
Chinese OEMs are structurally central

This paradox exists because China's role in clean-energy manufacturing is not substitutable at the speed the market now demands given the scale, cost advantages and vertically-integrated supply chains that have been established for more than a decade. [International Energy Agency \(IEA\) analysis](#) shows China accounts for around 85% of solar PV supply chain production capacity and around 80% of lithium-ion battery supply-chain production capacity. Its share is even higher in specific bottleneck stages, including around 95% of PV wafers and 97% of battery anode materials.

China is not the only source of OEM excellence. Denmark and Germany retain deep credibility in wind engineering, service and bankability; South Korea and Japan remain strong in batteries, power electronics and reliability-led manufacturing; and the U.S., Spain, Austria and Israel have credible positions in differentiated solar, inverters, microinverters, grid software and storage integration. India is also emerging as an important wind and solar manufacturing base. But these strengths are typically concentrated by technology or niche. China's distinction is the combination of scale, cost, vertical integration and deployment speed in a way few alternatives can replicate across much of the electrification stack.

Once embedded, these dependencies are difficult to unwind without introducing further delay, cost or performance risk. What appears diversified on paper can include shared dependencies in practice across factories, firmware, logistics routes and service arrangements. The more credible strategy is not to assume dependency can be avoided altogether, but to locate it precisely, diversify where exposure is systemic and manage the residual risk explicitly.

This is not confined to one jurisdiction, OEM category or procurement decision. Recent examples — spanning U.S. offshore wind, EU scrutiny of suppliers, solar import enforcement across multiple origin countries and fabrication route exposure through key maritime chokepoints — all point to the same underlying issue. This is a bankability and insurability challenge across jurisdictions.



Willis perspective: European wind — scaling under hidden dependency

Europe's wind sector appears diversified, with multiple OEMs, strong engineering capability and an expanding offshore pipeline. In practice, diversification is more fragile than it looks. Chinese OEMs dominated global turbine rankings in 2025, filling the top six positions in the global rankings and reinforcing system-level exposure across wind supply chains.

As deployment accelerates, timelines are tightening. Europe installed 19.1 GW of new wind capacity in 2025 and anticipates installations over 2026-2030 to take the EU to 343 GW and Europe to 439 GW of total installed capacity. Disruption rarely presents as physical damage. Instead, it emerges as delay — through component bottlenecks, installation constraints and certification timelines — driving revenue loss, cashflow pressure and refinancing risk.

The risk is no longer which asset fails, but how delay propagates across a system built on shared dependencies. The implication is clear: dependency cannot be avoided at the required pace. It must be identified, segmented, and actively managed before stress reveals where concentration truly sits.

This dynamic is explored in more detail in our accompanying analysis of European wind and the evolving role of Chinese OEMs in global turbine supply chains.



Marte Andreassen

Marine & Offshore Energy, Willis
marte.andreassen@wtwco.com

From supplier choice to accelerated dependency risk

When disruption occurs, the impact often materializes as delay without physical damage and critically, through delivery and commissioning timelines that are tightly engineered but operationally fragile. Even where equipment is available, disruption to transport routes, customs holds, certification processes or installation capacity introduces lag into a finely balanced system. In many cases, the financial impact of delays now exceeds the cost of replacing damaged equipment but may sit only partially within traditional insurance structures.

Why this matters for bankability and insurability

Highly electrified systems introduce lead times between disruption and financial impact. Revenue shortfalls, liquidated damages and refinancing pressure often emerge only after inventory buffers are exhausted, project schedules slip and commissioning dates move. For insurers, this shifts the focus from asset damage to timing: when does loss attach relative to waiting periods, policy triggers and indemnity periods? For lenders, it raises a parallel question: how long can the project absorb delay before cashflow, and debt servicing are affected?

Insurers and lenders are increasingly looking beyond nationality alone, focusing instead on dependency, recoverability and evidence while still treating origin, ownership, cyber access and regulatory exposure as material where they affect project resilience. What improves confidence is not branding, but evidence: realistic delay assumptions, tested contingency plans and clear alignment between procurement, contracts and insurance.



The hidden risk isn't just component failure. It's common mode dependency — the same firmware, the same spares model, the same logistics pathway repeated across a portfolio. When that dependency is stressed, the loss shows up as delay and degraded performance long before anything looks like damage.



Babak Eftekharnajad, Associate Director, Risk Engineering, Willis Natural Resources





For risk leaders, this isn't a 'Country X or not Country X' decision. It's a governance decision. If you can't explain how delay propagates from procurement to commissioning to revenue, you can't price it, finance it, or insure it properly.

Ray Zhang, Power and New Energy, Power and Infrastructure, Willis Natural Resources, China

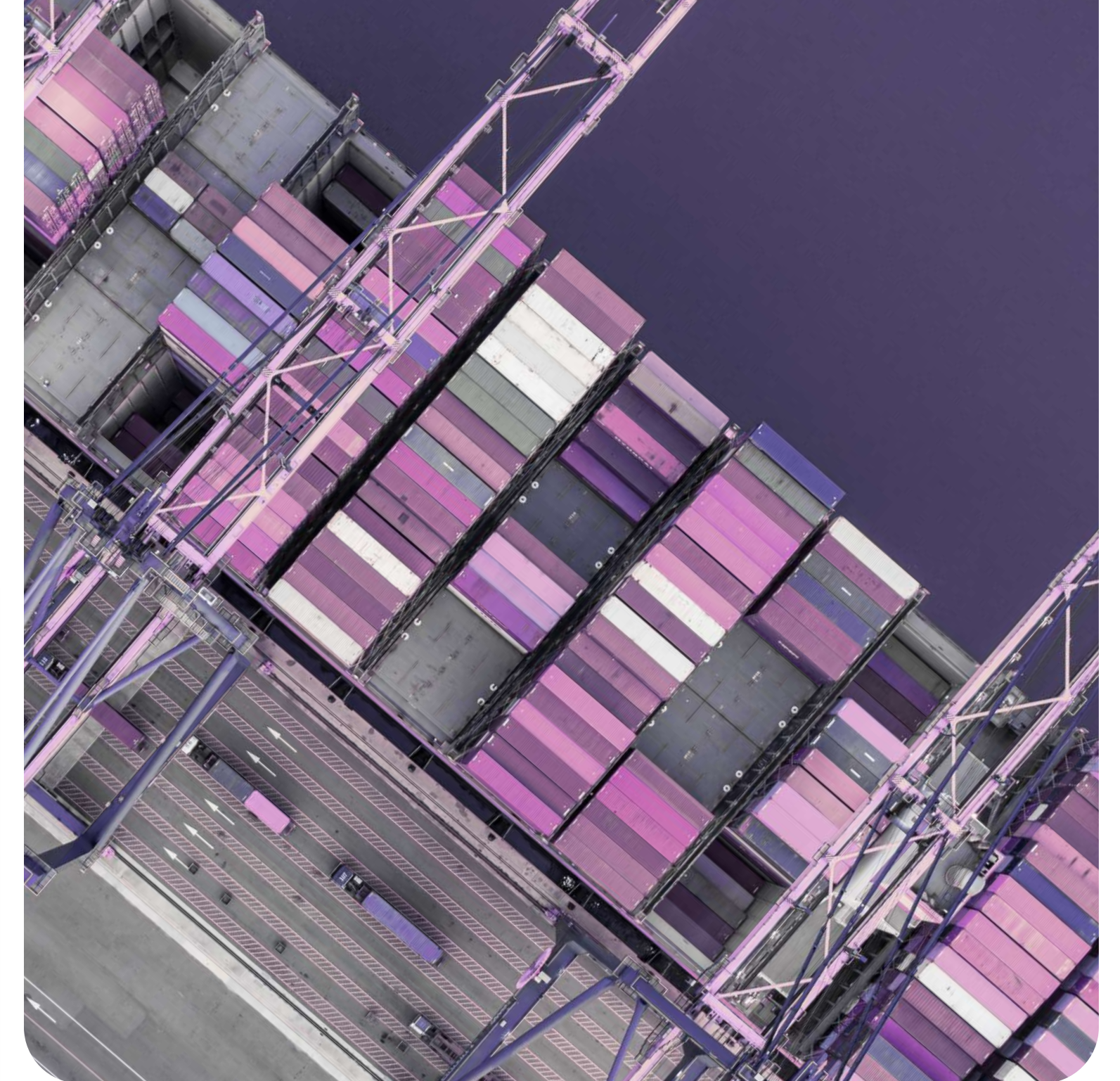
For insurers, this has sharpened attention on aggregation, delay scenarios and recovery realism. For lenders, it has elevated dependency management into a financing issue. Insurance availability, terms and pricing increasingly rest on credible recovery evidence, not simply technical compliance at commissioning.



In live placements, the conversation has moved on from 'who is the OEM?' to 'what happens when the timeline breaks.' Underwriters want to see where dependency sits, how fast you can recover, and whether your insurance assumptions match the real lead times



Jonny Martin, Director, Renewable Energy, Willis Natural Resources



Key questions now include:

- Where are the single points of failure across OEM platforms, sub-suppliers, firmware, control systems and logistics routes?
- How quickly can components realistically be replaced under customs, regulatory, trade or shipping disruption?
- Do delay-in-start-up (DSU), business interruption (BI), marine cargo, cyber, political-risk and trade-disruption structures reflect the actual recovery pathway?



5 actions renewable energy leaders are taking to build resilient supply chains

As electrification accelerates, risk leaders sit at the center of the trade-off between speed, resilience and financial performance. The question is no longer just “what happens if something fails?” but “how long before failure becomes financially visible, and does our insurance recognize that timing?” Resilient organizations are managing dependency deliberately rather than implicitly:

1. Identify dependency where it actually sits

Move beyond OEM brand lists. Bring procurement, project delivery, finance, legal, cyber and insurance stakeholders into one room to map exposure across specific models, factories, firmware platforms, shared sub-suppliers, critical components, logistics routes, ports, storage concentrations and service arrangements. This allows decision-makers to distinguish acceptable dependency from systemic fragility and explain that difference to insurers and lenders.

2. Build a forward-looking dependency strategy

Set concentration thresholds by technology, control criticality, supplier, geography, component and route. Separate commodity equipment from critical-control assets. Approve suppliers and technologies at the level of insurable risk: model, factory, bill of materials, firmware and service model, not brand alone.

3. Stress-test delay and recovery, not just physical loss

Harness risk engineering insights to model DSU and BI sensitivity to customs detention, replacement lead times, spares scarcity, marine rerouting, port congestion, regulatory intervention and service discontinuity. Validate substitution rights, spares availability and recovery assumptions in practice, not just in procurement documents.

4. Align procurement, contracts and insurance

Resilience is weakened when procurement, legal, cyber, finance and insurance decisions are made in isolation. Better outcomes come when warranties, parent guarantees, dispute forums, spare-parts obligations, cyber patching, remote-access governance and policy wordings support one another rather than creating hidden gaps. Making dependencies a board-level discussion can help to align commercial goals and actions with shared accountability.

5. Optimize risk financing to preserve investment capacity

Use analytics and risk engineering insights to balance retained volatility and insurance spend. The objective is not to insure every exposure. It is to understand which dependencies can be retained, which should be transferred, which require contract protection and which need operational redesign. Getting this balance right can unlock capital and drive an optimized risk spend.



The strategic takeaway

The strategic challenge is not to slow deployment in pursuit of perfect resilience. It is to recognize that energy security crises accelerate dependency faster than governance frameworks naturally adapt.

Leaders that address this gap deliberately by designing for evidence, optionality and recoverability, and by understanding how delay propagates through supply, delivery and commissioning timelines will be better positioned to deliver the speed that energy security now demands, without embedding avoidable fragility into the systems they depend on.

Bottom line: Diversify where exposure is systemic.
Contract for recourse. Engineer for failure. Insure for delay, defects, cyber and political disruption.
Keep proof ready before a crisis begins.

To find out how to design a robust risk strategy, contact:

Marte Andreassen

Marine & Offshore Energy, Willis
marte.andreassen@wtwco.com

Babak Eftekharnajad

Associate Director, Risk Engineering,
Willis Natural Resources
babak.eftekharnajad@wtwco.com

Jonny Martin

Director, Renewable Energy, Willis
Natural Resources, United Kingdom
jonny.martin@wtwco.com

Lucy Stanbrough

Head of Emerging Risk,
Willis Research Network, Willis
lucy.stanbrough@wtwco.com

Ray Zhang

Power and New Energy, Power and
Infrastructure, Willis Natural Resources, China
ray.zhang@wtwco.com

Key renewable energy hotspots

China

Motto Lv

Head of New Energy, Power and New
Energy, Willis Natural Resources, China

China's hybrid wind turbine tower market, characterized by steel-concrete composite structures, has expanded rapidly since 2024, underpinned by the strong growth of China's wind power industry.

In 2024 alone, China added [79–87 GW](#) of new wind capacity, accounting for nearly [70%](#) of global installations, while cumulative installed capacity exceeded [520–560 GW](#), maintaining its position as the world's largest wind market.

Within this rapidly expanding market, hybrid towers have become a key enabling technology. Industry data shows that hybrid tower penetration increased from approximately [30% in 2023 to over 33%–40% in 2024](#),

In absolute terms, hybrid tower-related project awards reached over 61 GW of onshore wind capacity in 2024, reflecting a threefold increase compared to 2023¹.

This growth is closely linked to turbine upscaling. As the industry shifts toward 5–10 MW turbines and hub heights above 140–180 meters, hybrid tower costs are typically [30%–40%](#) lower than equivalent steel towers, while also delivering higher energy yield due to increased wind capture.

In response, the market structure is evolving in parallel. Leading turbine OEMs are actively integrating hybrid tower capabilities into their product offerings, while specialized suppliers collectively account for more than 80% of the domestic hybrid tower supply market.² Construction groups are also entering the segment, further diversifying the supply chain.





Looking ahead, China's wind sector is expected to maintain strong momentum, with policy targets calling for cumulative wind capacity of approximately [1.3 TW by 2030 and an ambitious 5 TW by 2060](#), alongside annual installations exceeding 120 GW during 2026–2030.³ Against this backdrop, hybrid towers are positioned to become the dominant onshore tower solution, with penetration likely exceeding [60%–70%](#) of new installations over the next decade, particularly in low-wind-speed inland regions and complex terrains.

This rapid scaling of hybrid tower deployment is introducing more stringent requirements for quality control, structural integrity, and lifecycle risk management. As project size and technical complexity increase, the integration of engineering innovation, supply chain standardization, and insurance-based risk transfer will play a critical role in ensuring the sustainable and resilient growth of the market.

Traditional insurance products, when applied independently, can fail to address the unique risk profile of hybrid towers, particularly the gap between product quality risks and third-party liability exposures across different lifecycle stages.

To address this gap, future-ready project owners and developers are investing in an integrated insurance solution tailored specifically for the hybrid tower

industry in early 2025. By integrating Product Liability Insurance and Product Quality Guarantee Insurance into a coordinated framework, specialist brokers design a continuous and complementary coverage structure with the aim of enhancing the insurability of hybrid tower projects, improving project bankability, and strengthening stakeholder confidence.

To find out how to implement a future-ready risk strategy, contact:

Motto Lv,

Head of New Energy, Power and New Energy, Willis Natural Resources, China

motto.lv@wtwco.com

¹ China Wind Power Hybrid Tower Industry Development Report

² Data from the Hybrid Tower Sub-Association of the China Concrete and Cement-based Products Association (CCPA)

³ Beijing Declaration on Wind Energy 2.0

South Africa



Gustav Röth

Head of Renewable Energy,
Willis Natural Resources, South Africa

South Africa stands out as one of Africa's largest and most advanced renewable energy markets, underpinned by abundant solar and wind resources, strong private capital flows, and the rapid rise of corporate power purchase agreements.

South Africa's Minister of Electricity and Energy announced that the Department received a total of 48 bid responses for the seventh bid window under the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP), totalling over [10.2 GW](#) (including 40 from solar PV and 8 from onshore wind projects) in 2024. Yet the pace of expansion is increasingly constrained not by cost or financing, but by transmission bottlenecks, making grid access the central challenge.

The country's strengths remain compelling: competitive solar irradiation and onshore wind zones, a procurement framework that has proven bankability, and regulatory reforms that have eased licensing and enabled wheeling and multi-buyer arrangements.

But challenges endure:

- Transmission capacity in high-resource provinces such as Northern, Eastern and Western Cape and the Free State is saturated, leading to delays and disputes over allocation
- Curtailment rules have unlocked [3,470 MW](#) in the Western and Eastern Cape, but they are unsustainable substitutes for new transmission lines
- Long lead times for new corridors



- Funding challenges for transmission projects
- Institutional uncertainty

In response, investment is shifting toward provinces with spare grid capacity, distributed and behind-the-meter systems, and hybrid projects that combine solar with storage to reduce reliance on the grid. Corporate power purchase agreements (PPAs) are becoming central, with grid risk increasingly priced into contracts.

Key technologies:

- Solar PV remains the fastest-growing technology, especially in commercial and industrial hybrids with batteries because of rapid deployment and low cost
- Wind continues to play a balancing role but is limited by congestion
- Storage and hybrid systems are gaining traction as they enhance dispatchability and bankability
- Gas is viewed as a transitional option despite slow progress due to fuel supply and pricing uncertainties
- Green hydrogen offers long-term export and industrial decarbonization potential, though it requires dedicated renewable build-out and infrastructure

Insurance market trends:

- Rates are stable to softening, while remaining higher for BESS and nat cat-exposed sites
- Local capacity is adequate but international markets maintain a key supporting role
- Placement strategies feature a combination of local and international insurers, with premiums tailored to the unique risk characteristics of each project rather than a one size fits all rate
- Appetite is strong for solar and wind, while more cautious for BESS and emerging technologies

To secure more competitive terms, renewable energy companies in South Africa should focus on:

- Using risk engineering to understand how best to mitigate hail, flood, and BESS fire risks, and strengthen site security measures
- Harness data-driven insights and specialist broking to optimize deductibles and program structures
- Initiate dialogue with insurers and lenders at the outset of the project

Looking ahead, success will depend on aligning project development with available transmission capacity, accelerating storage adoption, and leveraging corporate demand to sustain momentum in the energy transition.



Gustav Röth

Head of Renewable Energy,
Willis Natural Resources, South Africa

gustav.roth@wtwco.com

North America



Alex Forand

U.S. Head of Power and Utility
Broking, Willis Natural Resources

Over the past year, the North American renewable energy market has continued to grow, supported by government policy, corporate climate goals, and rising electricity demand. In the United States, the [Inflation Reduction Act \(IRA\)](#) remains a key driver of investment and supports a strong pipeline of solar, wind, and battery storage projects.

Solar and storage have led to most new capacity additions, while onshore wind growth has been more uneven due to permitting challenges and supply chain issues. Renewable energy's share of electricity generation continues to rise, although growth varies by region.

At the same time, the market is becoming more complex. Investment remains strong, but developers are facing longer interconnection queues, limited transmission capacity, and changing regulatory requirements. In the U.S., delays connecting projects to the grid are extending timelines and increasing risk. Higher construction costs, labor shortages, and continued pricing pressure for key components, such as transformers, are also affecting project economics. Despite these challenges, stable policy support and long-term tax incentives continue to provide confidence for investors.

An important trend is the growing concentration of demand in regions such as PJM, along with rapid growth in data centers. Backlogs in PJM are slowing the addition of new renewable capacity, while demand from data centers, driven by cloud computing and AI, is increasing competition for power and grid access. This is tightening supply-demand balances and increasing price volatility. It also raises new considerations for insurers, including grid reliability, dependencies between power supply and demand, and the risks associated with locating energy assets close to large power users.

From a risk and broking perspective, the renewable energy insurance market in North America remains soft, with falling prices across the U.S. Insurance capacity is available, with carriers eager to right new business. A benign catastrophic 2025 paved the way for continued softening of the property market. Equally, casualty capacity continues to flow into renewables and is helping to counter trend the persistent rate environment. Well-structured projects with experienced sponsors, proven technology, and strong risk management are achieving good results. More complex projects, such as those using newer technologies or located in challenging environments, are facing closer review, which can affect pricing, terms, and available capacity.

Natural catastrophe risk continues to be a key factor in underwriting, with regional differences shaping insurer approach. Climate shifts show a clear shift in [“Tornado Alley”](#) eastward and recent strong storms continue to show this shift. Wind, wildfire, and flood risks also influence underwriting decisions, particularly in coastal and western regions. In addition, concerns about equipment performance, including solar panels, inverters, and battery systems, are leading to a more technical and data-driven approach from insurers.

Overall, North America’s renewable energy market offers strong growth opportunities but comes with increasing complexity. The insurance market remains supportive of well-managed risks. Achieving optimal outcomes requires clear risk presentation, strong technical quality, and early engagement with insurers. Organizations that can demonstrate resilience and align with insurer expectations will be best positioned to secure stable and competitive insurance solutions.



Alex Forand

U.S. Head of Power and Utility
Broking, Willis Natural Resources

alex.forand@wtwco.com





Latin America



Sergio Toro

Head of Power & Renewable Energy,
Willis Natural Resources, Latin America

Latin America continues to see solid growth in renewable energy investments and project deployment, supported by strong natural resource potential across the region. Renewables maintain a share above [65%](#) of the energy mix, confirming their strategic role in the global energy transition.

In 2025, total electricity generation reached [153 TWh](#), with a year-on-year increase of [2.7%](#). Renewable energy has led this growth.

Across the region, some countries are gradually moving away from fossil fuels, while others still rely on them as backup to support system reliability and avoid instability risks.

As the renewable energy footprint grows, new risks continue to evolve. These include regulatory, social, environmental, as well as technical and operational challenges. Managing these risks requires not only strong investor discipline, but also clear and stable public policies that support long term development.

Transmission constraints remain one of the main challenges. Network expansion is not keeping pace with renewable growth, leading to congestion, dispatch limitations and in some cases system instability. This is also driven by the intermittent nature of renewables and their limited response in fast changing system conditions.

Addressing transmission constraints will require both network expansion and the development of smarter grids that improve reliability, stability and efficiency, while enabling better integration of different generation sources.

Advanced technologies such as flexible AC transmission systems (FACTS) and grid forming solutions will be key in supporting more flexible and resilient networks.

Looking ahead, 2026 and 2027 may bring additional pressure due to a strong potential for an El-Niño-level event expected towards the [fourth quarter of 2026](#), according to the NOAA. This could lead to drought conditions in some countries, affecting generation, especially hydro, while others may face heavy rainfall and increased exposure to natural risks impacting power infrastructure.

From a market perspective, the (re)insurance environment remains competitive. High capacity continues to put pressure on pricing and has led to more flexibility in coverage. This has benefited clients, with rate reductions in the range of 20-30% for well managed risks with strong loss records.

Considering the risks mentioned and that market conditions continue to be beneficial for insureds, it is important to take the opportunity to anticipate the renewal of the insurance program before the expiration date through first line markets.

At the same time, continuing to reinforce the risk management program will be key to maintain good discussions and negotiations with the markets. It is important not to miss the opportunity that the current market conditions are offering.



Sergio Toro

Sergio Toro, Head of Power & Renewable Energy, Willis Natural Resources, Latin America

sergio.toro@wtwco.com



Australia



John Rae

Pacific Renewable Energy Leader,
Willis Natural Resources, Pacific

Over the past year, Australia's renewable energy sector has continued its rapid expansion, underpinned by record levels of generation, capacity growth, and increasing system penetration.

By 2025, renewables accounted for approximately [36%](#) of total national electricity generation, with even higher levels observed in the National Electricity Market (NEM), where penetration reached around [40%](#) in early 2025. A key milestone was achieved in late 2025, when renewables supplied more than [50%](#) of national electricity market electricity over a full quarter for the first time. This was driven by sustained growth in rooftop solar, strong wind output, and increasing battery storage deployment.

Investment activity has remained robust, with billions committed to large-scale generation and storage projects, alongside continued strong uptake of rooftop solar. This momentum reinforces Australia's position as a global leader in distributed solar adoption.

Despite this growth, the sector is entering a more complex phase of the energy transition. While capacity additions (particularly in solar, wind, and battery storage) remain strong, large-scale project investment has been uneven. This is primarily due to grid constraints, planning delays, and rising construction and financing costs. Government support mechanisms, including the expanded Capacity Investment Scheme, are helping to underpin future supply, while policy certainty following the 2025 federal election has supported investor confidence.



However, challenges related to transmission infrastructure, supply chains, and the integration of variable renewable energy are becoming increasingly prominent



John Rae, Pacific Renewable Energy Leader, Willis Natural Resources, Pacific

Overall, the past year reflects both strong momentum toward decarbonization and a growing need to address system-level bottlenecks to achieve Australia's [82%](#) renewable electricity target by 2030.

In this context, the renewable energy insurance market in Australia remains supportive but highly selective in 2026. Although broader market conditions have begun to ease, insurers continue to exercise caution due to recent loss experience, heightened climate exposure, and evolving technology risks. As a result, well-structured, high-quality projects are generally achieving favourable outcomes, while more complex or poorly presented risks face ongoing pricing pressure and tighter coverage terms. Strong investment across solar, wind, and battery storage continues to drive insurance demand across both construction and operational phases. Insurer appetite remains present; however, capacity deployment and pricing are increasingly influenced by factors such as project location, technology type, and overall risk quality.

Natural catastrophe exposure (particularly from hail, wind, bushfire, and flood) remains a key driver of underwriting decisions and pricing outcomes. In parallel, claims arising from equipment failure and design defects have reinforced a more disciplined underwriting approach. Broader market pressures, including claims inflation and elevated reinsurance costs, also continue to support premium levels across the sector.

In summary, the 2026 renewable energy insurance market is competitive for high-quality risks but remains challenging for more complex exposures. Achieving optimal outcomes increasingly depends on strong risk presentation, robust technical design, and a strategic, well-structured approach to insurance program placement.

To discuss how to prepare for the year ahead, contact:



John Rae

Pacific Renewable Energy Leader,
Willis Natural Resources, Pacific

john.rae@wtwco.com

Asia



Sam Liu

Head of Renewable Energy,
Willis Natural Resources, Asia

Asia continues to set the pace of the global energy transition. In 2025, the region accounted for [74.2%](#) of global new renewable capacity additions, increasing installed renewable capacity by [513.3 GW to 2,891 GW, or 56.1%](#) of global renewable capacity.

Expansion across solar, onshore and offshore wind, hydropower, rapidly scaling battery energy storage systems (BESS), hybrid installations and growing floating solar deployments has reinforced Asia's central role in global decarbonization. As scale accelerates, however, risk complexity has increased. Insurance has shifted from a transactional requirement to a strategic enabler of bankability, lender confidence and capital mobilization.

A major risk: Supply chain

Supply chain resilience remains a defining risk for Asia's renewable sector in 2026. Geopolitical tensions, trade policy intervention, logistics disruption and supplier concentration continue to influence construction schedules, project economics and insurance outcomes.

The renewable energy sector remains structurally reliant on highly concentrated manufacturing hubs, particularly for solar PV modules, inverters, wind turbine components and battery cells. China continues to dominate the global solar and battery supply chain, creating exposure to export controls, tariffs and policy driven industrial realignment. While diversification efforts in India and Southeast Asia are progressing, alternative supply chains have yet to match China's scale, cost efficiency and maturity.



Rather than acute shortages, disruption has increasingly manifested through delivery volatility and cost uncertainty, driving longer lead times, price sensitivity and misalignment between EPC procurement assumptions and actual delivery timelines.

The impact of China's withdrawal of export subsidies

China's withdrawal of export linked VAT rebates for solar PV products (effective April 2026), alongside the phased removal of rebates for battery products through 2026–2027, marks a structural inflection point for global renewable supply chains. Manufacturers have repriced modules and battery products to reflect the loss of subsidy support, establishing a higher global price floor for solar and storage components.

For Asia Pacific projects, this has increased procurement risk, margin pressure and sensitivity to delivery timing. From an insurance and financing perspective, these developments sharpen focus on delay in start up (DSU) exposure and adequacy of DSU indemnity periods.

Insurance trends

The Asian renewable energy insurance market in 2026 remains broadly competitive, supported by global insurers, regional markets and reinsurance capacity. Availability has stabilized and increased — particularly for well structured, utility scale projects supported by proven technologies, experienced sponsors and strong risk governance.

Domestic Asian insurers continue to expand participation, enhancing local capacity. However, international reinsurance remains essential for large scale, complex or catastrophe exposed projects. Underwriting remains highly technical and selective, with insurers differentiating risks based on engineering quality, sponsors capability, technology maturity and natural catastrophe exposure.

The year ahead

Looking ahead, the Asia renewable energy insurance market is expected to remain supportive but cautious, particularly for emerging technologies and projects in high catastrophe regions. Strong regional pipelines driven by energy security priorities, government policy and decarbonization commitments will underpin demand.

At the same time, climate volatility, supply chain disruption, subsidy withdrawal and evolving technologies will reinforce underwriting discipline. Insurance will continue to play a strategic role in enabling the energy transition, supporting project resilience, lender confidence and long term asset performance.

For sponsors, developers and lenders, optimal outcomes in 2026 will depend on:

- Early engagement with brokers and markets
- Transparent data disclosure
- Strong alignment between technical design, contractual protections and risk transfer strategies, particularly around supply chain resilience, DSU exposure and natural catastrophe risk

To discuss how to build resilience in a competitive market, contact:



Sam Liu

Head of Renewable Energy,
Willis Natural Resources, Asia

sam.liu@wtwco.com

Nordics



Henrik Brune

Nordic Head of Renewable Energy,
Willis Natural Resources, Norway

During the past year, the Nordic renewable energy sector has been shaped by both optimism and uncertainty. Policy is no longer focused solely on adding renewable capacity, but increasingly on hydrogen and power-to-X developments, grid expansion, and flexibility solutions.

But as geopolitical tensions and supply chain uncertainty delay investment decisions, the market has struggled to maintain strong momentum. While traditional oil and gas companies continue to benefit from strong revenues, renewable investment appetite has slowed.

Technology deployment trends have also shifted:

- Solar and bioenergy continue to expand. Solar has emerged as one of the [fastest-growing](#) renewable technologies in the Nordics despite historically low market penetration, reflecting improving project economics and growing diversification across technologies
- Onshore wind investment [slowed in 2025](#) due to prolonged permitting timelines and project approval challenges

- During the past year, offshore wind licenses have been awarded — such as the Bornholm Energy Island project with Denmark and Germany, concluding a bilateral agreement in early 2026 to jointly develop the planned [3 GW offshore wind hub](#) in the Baltic Sea. Previous challenging auction rounds have now been re-designed and re-launched to meet the international requirements of operators and investors
- Norway's hydropower, historically a domestic baseload asset, is increasingly serving as a strategic flexibility resource for the wider European power system. This is strengthening regional energy resilience
- The commissioning of Northern Lights marks a major milestone for carbon management infrastructure, with the project now operational following [first commercial CO₂ injection](#) in late 2025
- Sweden remains one of Europe's clean energy leaders, with approximately [99%](#) of electricity generation coming from low-carbon sources, reinforcing the region's reputation for advanced energy system decarbonization

Commitment to upgrade the major assets across the country will drive further growth and optimization. At the same time, the discussions around the use of Chinese wind original equipment manufacturers (OEMs) are ongoing, highlighting the continued tension between cost competitiveness and energy security considerations.

Insurance market trends

The Nordic power and renewable energy insurance market has continued to grow and mature. New market entrants have been warmly welcomed, and they provide strong capacity and underwriting knowledge. Recently, major international insurers who previously did not have local underwriting capabilities in the region are now setting up operations to provide power and renewable energy servicing and underwriting locally. We see this as a healthy sign of where the region is heading and we are positive about the years to come.

Overall, the Nordic market remains a critical renewable hotspot, not necessarily because of explosive growth, but because it increasingly serves as a test case for the next phases of the green transition.

To prepare for the year ahead, renewable energy project owners and developers should consider:

- **Clearly differentiate your risk profile:** While the region benefits from strong infrastructure and a mature energy system, insurers increasingly expect clients to support this with detailed performance data. Projects that clearly differentiate their risk profile are better positioned to secure favourable terms, as underwriters in the Nordics are becoming more selective

- **Address supply chain and OEM risk upfront:** Proactively managing and communicating supply chain exposure and OEM choices is essential, particularly in light of geopolitical tensions and increased scrutiny of certain suppliers, which may influence underwriting appetite
- **Engage early on nat cat exposure:** Taking an early and proactive approach to natural catastrophe modelling and mitigation is increasingly important, as underwriters place greater emphasis on site-specific weather and climate-related risks, which may impact both pricing and terms



Henrik Brune

Nordic Head of Renewable Energy,
Willis Natural Resources, Norway

henrik.brune@wtwco.com

CEMEA



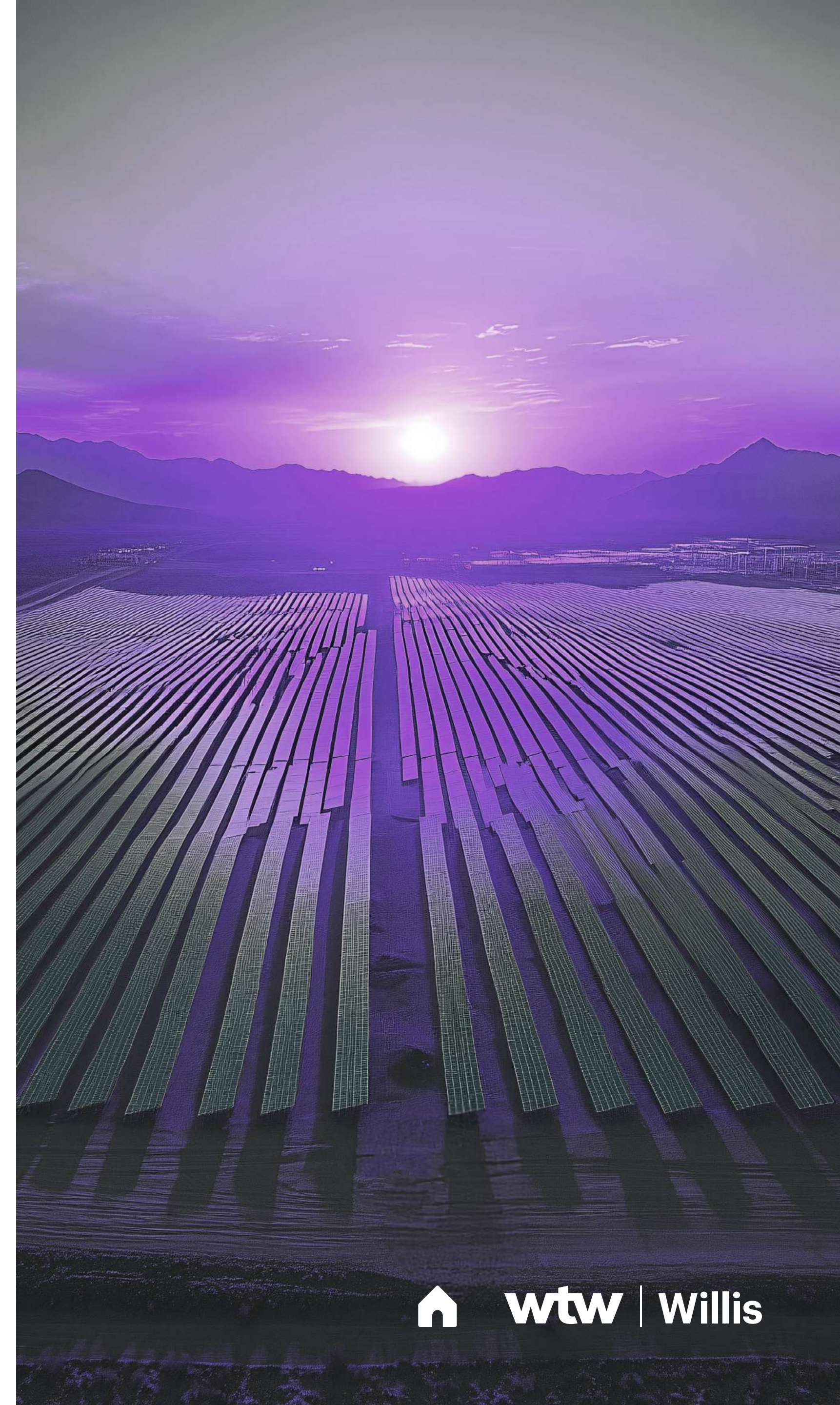
Mark Hiles

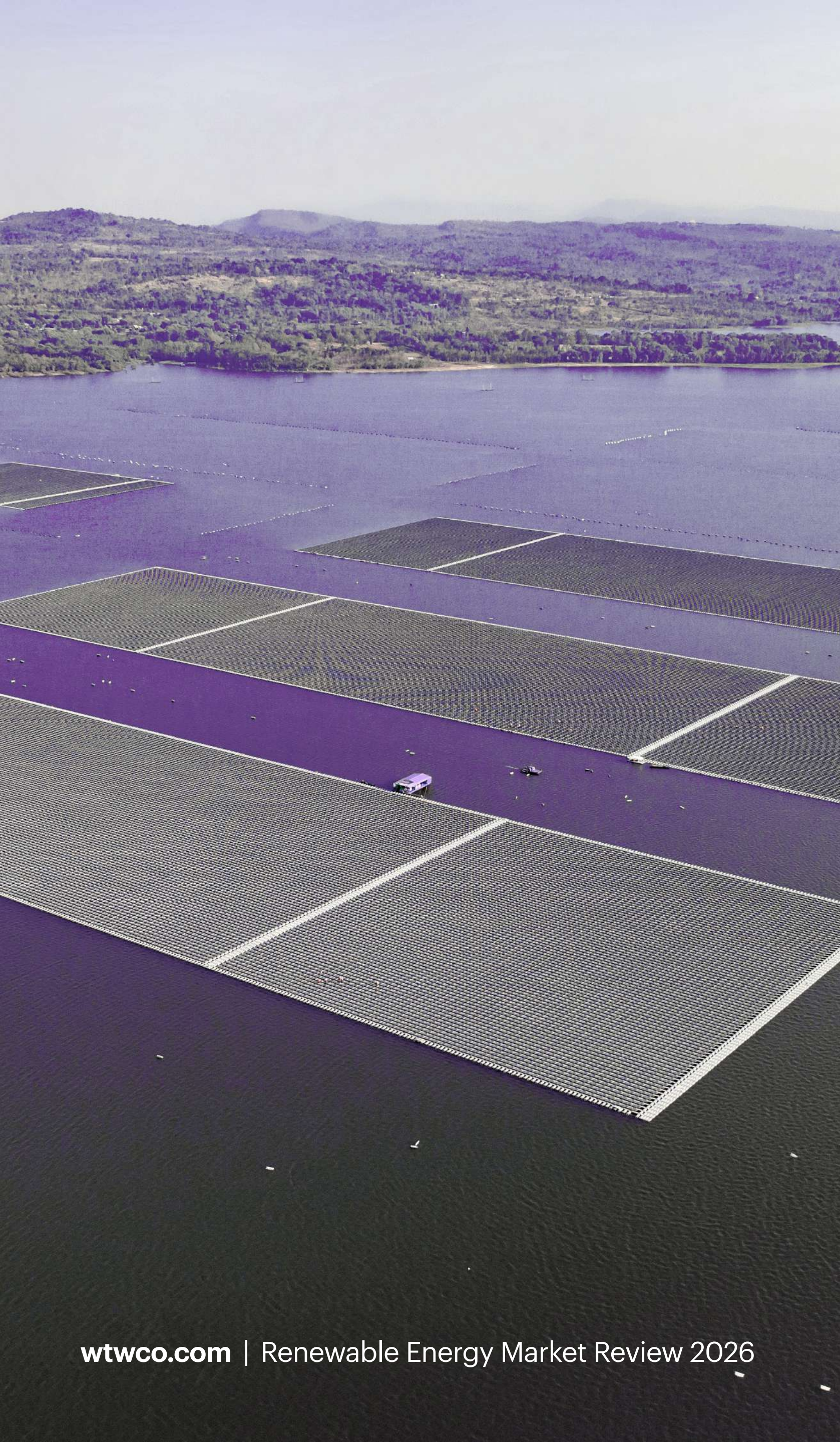
Global Head of Power & Utilities
Broking, Willis Natural Resources

The CEEMEA (Central and Eastern Europe, Middle East and Africa) (re) insurance market continues to feature a mix of international and domestic markets, alongside managing general agents (MGAs). International markets deliver substantial capacity and global expertise, supporting the underwriting of large and complex renewable energy projects.

Regional offices enable a localized underwriting approach that balances global standards with on-the-ground insights. Domestic markets provide deep regional knowledge and tailored solutions for local risks, while MGAs serve as agile intermediaries, offering specialized expertise and rapid responses to evolving conditions.

Regional carriers maintain a broad geographical reach, spanning the Middle East, Africa, Asia, Central and Eastern Europe, and Latin America. This scope is segmented by maximum capacity allocations across renewable segments, simultaneously opening the door to portfolio diversification opportunities, while reinforcing the need for careful risk management. Market appetite has strengthened further into 2026, with established players expanding lines and new entrants arriving via mergers and acquisitions, regional branch openings, or increased participation.





Diversification across renewable segments underscores the market's adaptability to the region's growing energy transition needs. Solar PV risks retain the highest total available maximum capacity, reflecting sustained confidence amid strong deployment. Onshore wind and battery energy storage systems (BESS) follow closely, supported by their expanding roles in hybrid projects and grid stability. Hydro and biomass maintain solid appetite, while emerging technologies like green hydrogen are still being explored, and floating solar continues to gain traction with increasing capacity allocations.

As traditional energy operators accelerate their diversification into renewables, CEEMEA remains an attractive destination for insurance capital. The region offers large, complex risks with compelling premium levels and historically favourable profiles regarding asset age and natural catastrophe exposure relative to other markets.

Following periods of loss activity in prior years, underwriters are proceeding with selective scrutiny, particularly for technologies that have presented construction or operational challenges.

But loss trends aren't enough to overturn the broader 2026 renewables insurance environment, which continues to show softening trends with increased capacity, competitive pressures, and opportunities for well-engineered, data-rich projects to secure improved terms.

Looking ahead, engineering will be key to differentiating risks in a competitive market. This evolution supports greater risk transfer options for clients while rewarding strong risk management practices, positioning CEEMEA as a resilient and opportunistic hub within the global renewable energy insurance landscape.



Mark Hiles

Global Head of Power & Utilities
Broking, Willis Natural Resources

mark.hiles@wtwco.com

Disclaimer

WTW offers insurance-related services through its appropriately licensed and authorised companies in each country in which WTW operates. For further authorisation and regulatory details about our WTW legal entities, operating in your country, please refer to our WTW [website](#). It is a regulatory requirement for us to consider our local licensing requirements. Please read more [here](#).

The information given in this publication is believed to be accurate as of June 2026. This information may have subsequently changed or have been superseded and should not be relied upon to be accurate or suitable after this date. This publication offers a general overview of its subject matter. It does not necessarily address every aspect of its subject or every product available in the market and we disclaimer all liability to the fullest extent permitted by law. It is not intended to be, and should not be, used to replace specific advice relating to individual situations and we do not offer, and this should not be seen as, legal, accounting or tax advice. If you intend to take any action or make any decision on the basis of the content of this publication you should first seek specific advice from an appropriate professional. Some of the information in this publication may be compiled from third party sources we consider to be reliable, however we do not guarantee and are not responsible for the accuracy of such. The views expressed are not necessarily those of WTW.

Please read

All rights reserved: No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, whether electronic, mechanical, photocopying, recording, or otherwise, without the written permission of WTW.

This update analyses our observations of the current global market conditions for renewable energy insurance and the impact this has on insurance buyers. This update is based on our observations of the market for our WTW clients and is not a whole of market review.



wtwco.com/social-media
Copyright © 2026 WTW. All rights reserved.
FPS10316322M

