



# Major renewable energy insurance market trends are evolving in key regions

## Asia



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Asia was the primary driver of the 140% global growth of renewable capacity over the past decade, contributing 421.5GW of new capacity — 72% of the global total — and bringing its cumulative capacity to 2,382GW, or 53.6% of the global share.<sup>1</sup>

Asia continues to lead global renewable energy growth, fueled by rising energy demand, ambitious net-zero targets and the increasing cost-competitiveness of clean technologies. Countries such as China, India, Japan, South Korea and members of the Association of Southeast Asian Nations (ASEAN) are accelerating the deployment of solar, wind, hydro and emerging technologies — including hybrid installations that integrate BESS and Floating Solar Photovoltaics (FPV).

Looking ahead, floating solar is expected to play an increasingly important role in expanding Asia's renewable capacity. With technological innovation, supportive policy frameworks, and competing challenges for land use, optimization of FPV systems is gaining significant traction. In particular, ASEAN markets are seeing heightened interest, with developers actively participating in government tenders, indicating strong growth potential.

However, FPV projects face technical challenges, especially regarding floater design and the resiliency of anchoring and mooring systems — particularly in sites exposed to natural catastrophes. Site selection is therefore critical, as it directly impacts the overall system design. Extensive technical studies are required to gather accurate environmental data and ensure the project is engineered for long-term performance and durability. From a risk transfer perspective, there is a limited appetite and pool of quoting lead insurers,

though follow capacity is gradually expanding. However, this capacity is typically contingent upon a detailed engineering assessment of the project's technical design and its risk mitigation strategies, not all projects will sufficiently qualify for broadform coverage to a level which is required by commercial lenders.

In general, while new market entrants have increased overall capacity and enhanced competitiveness in the insurance sector, insurers remain highly technical and cautious — particularly when underwriting emerging technologies such as BESS, hydrogen, FPV and larger wind turbine models. Capacity remains constrained by factors such as natural catastrophe exposures and the accumulation of insured assets within specific regions, which continue to influence underwriting appetite and terms.

## China



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According to the report of Global Wind Energy Council (GWEC), by the end of 2024, the total offshore wind power installed capacity grid-connected in China accounted for 51.3% of the global market share.<sup>2</sup>

Currently, most of China's installed offshore wind projects are within the area of 30km offshore, but now, the world's first deep water wind power platform to supply power to offshore oil and gas fields by a 5km subsea cable operates at a 136km distance from the coast of Wenchang, Hainan, and 120m water depth.<sup>3</sup>

To adapt to deep and far locations, floating-type and large-scale turbines are a growing trend. But new technologies bring new risks. In China's offshore wind power projects, the insurance losses during the construction period are still mainly caused by damage to turbine blades and subsea cables, while insurance losses during the operational period

are mainly caused by damage to subsea cables. Claims due to severe weather risk accounted for a relatively small number of claims but resulted in huge claims amount. In total, balance of claims paid during the construction period and those in operational period account for 60% and 40% respectively.

At present, more than 10 Chinese insurers can provide coverage for offshore wind projects. Despite the Chinese domestic market being consistently soft through the recent hard technical market increases internationally, clients continue to enjoy positive insurance premium and terms and conditions in China. Most Chinese insurance companies are still feeling comfortable that they have delivered underwriting profits in offshore wind risks over the last 10 years.

For deep water offshore wind projects, if fixed foundation wind turbine towers are used, the Chinese domestic insurance market intends to initially use a similar approach to nearshore, with likely increases in premium rates and deductibles. At present, there is probably sufficient insurance capacity from local domestic markets, but if floating wind turbines are widely deployed, the Chinese domestic market would lack capacity. When floating turbine projects are scaled up, Chinese domestic insurers will be looking for strong facultative reinsurance support or specified treaty reinsurance.

## Australia



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Australia's renewable energy sector continues to grow rapidly, with 7.5GW of renewable energy capacity being added, including 4.3GW from large-scale power stations and 3.2GW from small-scale rooftop solar installations.<sup>4</sup> However, the insurance market for these assets is under pressure due to mounting claims, extreme weather events and ever evolving technology risks.



The Australian property insurance market remains cautiously optimistic. While capacity is available for well-managed and technically-sound assets, insurers are increasingly selective, particularly for:

- Older solar farms with poor operations and maintenance (O&M) practices
- Wind assets in bushfire or cyclone-prone areas
- BESS facilities with limited thermal controls or inadequate spacing

Despite hardening in prior years, capacity has improved due to increased appetite from global markets.

But nat cat exposures remain an outlier, where (re)insurer appetite is flat or declining. 2023–2024 losses due to hailstorms in Victoria and cyclone impacts in Queensland have made these perils central to underwriting. Risk modeling, particularly around flood, hail and bushfire and mitigation strategies (e.g., hail-resistant modules and vegetation management) are now minimum requirements. There will also be increased scrutiny of site selection, along with the civil works design to assess flood resilience. Insurers are also focusing on their particular accumulations in any one area or region and are being more selective in deploying capacity.

During the operational phase of any renewable project, insurers are emphasizing predictive maintenance, remote monitoring and robust contractor management. Projects with weaker O&M protocols or gaps in documentation can face higher rates or restricted cover at renewal.

Premiums are likely to remain risk-based rather than experiencing uniform market price trends.

Projects demonstrating strong design, maintenance and resilience will benefit from more favourable terms. Insurers are utilizing the use of satellite risk mapping, site-specific climate modeling and ESG scores in their underwriting, so developers should be contacting their broker to understand this exposure at their future sites.

Australia continues to be at the top of the leaderboard for renewable energy investment, global property insurance availability and affordability will hinge on project-level risk quality. Stakeholders should engage brokers early, invest in risk mitigation and embrace data-driven risk transparency to navigate a more technical and disciplined insurance landscape.

## Latin America



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Over the past decade, renewable energy in Latin America has made remarkable progress, driven by the region's abundant natural resources and growing interest from both domestic and international investors. Latin America has earned recognition for its progress and ongoing challenges, as highlighted in the 2024 Energy Transition Index published by the World Economic Forum (WEF).<sup>5</sup> Countries such as Brazil and Chile rank among the top 20 globally, while Costa Rica, Uruguay, Colombia, Paraguay, El Salvador and Peru also appear in the top 50 — reflecting a notable increase in renewable energy capacity.

Our 2025 Global Clean Energy Survey further reveals how companies in the natural resources sector are navigating the shift to clean energy, significantly increasing investments in technologies and infrastructure.<sup>6</sup> Key focus areas include solar and wind energy, green hydrogen, carbon capture and BESS. However, these technologies bring with them emerging risks such as supply chain disruptions, geopolitical tensions, climate variability, regulatory uncertainties, construction delays and overruns, cybersecurity threats, physical and transition climate risks, and grid limitations.

The Latin American markets (especially centered in Miami) are becoming increasingly supportive of renewable energy risks, frequently leading or sitting on same term slips with wider international carriers. The hardening of the domestic and regional markets over the last few years, when considered in the context of falling international rates, is providing greater parity in terms and conditions than we have seen for many years.

## North America



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In North America, the Electric Reliability Council of Texas (ERCOT) and the Pennsylvania-New Jersey-Maryland Interconnection (PJM) are experiencing unprecedented growth in electricity demand, primarily due to data center expansion. This expansion will put tremendous pressure on infrastructure, including new and existing assets. Approximately \$15 billion dollars in transmission investments are required to meet new demand by 2030.<sup>7</sup> This expansion will be met with regulatory and permitting hurdles, which pose challenges in both power generation and infrastructure upgrades to meet forecasted demands.

Data centers continue to be in focus and a growing demand across tech telecom, construction and natural resources industries. The International Data Corporation (IDC) expects global datacenter electricity consumption to more than double between 2023 and 2028 with a five-year Compound Annual Growth Rate (CAGR) of 19.5% and reaching 857 Terawatt hours (TWh) in 2028.<sup>8</sup> Regional hot spots in Pennsylvania-New Jersey-Maryland (PMJ) and Electric Reliability Council of Texas, Inc. (ERCOT) are showing prime locations for development due to favorable infrastructure, available and reliable energy sources, and an easier regulatory environment.

A number of key factors are driving uncertainty for insurance markets. Property insurance trends continued to see relief in the early stages of 2025, with renewal rates trending towards double-digit savings while new projects are seeing a five-year low in rates. Due to the strong growth of data center developers, new insurance capacity is introduced to the market every quarter. WTW continues to stay ahead of this concern with the implementation of WTW's [Tariff Guard](#), our proprietary tariff endorsement, which seeks to add additional coverage for those impacted by tariff related expenses.

Casualty rates continue to climb in the renewable energy sector due to higher-than-expected nuclear verdicts driving social inflation and continued pressures from climate

change. Independent power producers are slightly insulated from the broader casualty market, with rates remaining flat year over year. Any exposure to wildfire, heavy auto fleets or residential exposures continues to see rate pressures into 2025.

By proactively addressing infrastructure needs, regulatory frameworks and insurance considerations, renewable energy power producers can remain resilient through a challenging and delicate time in North America.

## CEEMEA



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The CEEMEA (Central and Eastern Europe, Middle East and Africa) reinsurance market features a complex mix of international and domestic markets, and managing general agents (MGAs).

International markets bring impressive capacity and global expertise, enabling them to underwrite large and diverse renewable energy projects. These capacities can be accessed at regional offices, enabling a localized approach to underwriting. Domestic markets offer localized knowledge and a tailored approach to regional risks. MGAs bridge the gap between two, providing specialized underwriting services and focused expertise, often with the agility to respond quickly to market changes.

Regional carriers offer a wide geographical scope, including the Middle East, Africa, Asia, Central and Eastern Europe and Latin America. This broad scope, which is further segmented into maximum capacity allocation for each individual renewable segment, presents unique challenges, but more importantly opportunities to diversify the risk profile of the portfolio. The market appetite is growing steadily, with existing players increasing their appetite and new players entering the market through mergers and acquisitions or establishment of regional branches.



The diversification across various renewable segments highlights the market's adaptability to evolving energy needs. Solar PV risks have the highest total available maximum capacity, reflecting strong market confidence in the sector. This is followed closely by onshore wind and BESS risks, indicating their critical roles in renewable energy portfolios. Hydro and biomass also have substantial market appetite, reinforcing their importance in the mix. Appetite for emerging technologies such as green hydrogen and floating solar is gaining momentum, with significant capacities available.

As traditional energy operators continue to diversify into renewable energy projects in the region, CEEMEA remains a popular destination for insurance capital deployment. The region features large and complex risks that invite attractive premium levels and historically carry less risk from an asset age and natural catastrophe perspectives compared to other regions. Following a period of loss activity, however, underwriters are applying more scrutiny in their reviews, especially for technologies that have proven to be challenging to erect or operate.

## Nordics



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Driven by a renewed political commitment and well-established clean energy infrastructure, the Nordic region remains a benchmark for sustainable energy development.

In Sweden, biofuels and waste have become the country's largest renewable source, and BESS is gaining momentum across the region. Carbon capture and storage (CCS) is also advancing, with flagship projects like Northern Lights in Norway and Greensand in Denmark scaling up. The government in Norway has relaunched the tender process for Utsira Nord (floating wind),<sup>9</sup> while Sørlige Nordsjø II (bottom-fixed) was awarded in March of 2024, totaling 3GW of new offshore wind development.<sup>10</sup> Similarly, Denmark is correcting course after last year's failed auction by launching a new 3GW offshore wind tender later this year.<sup>11</sup>

The insurance landscape in the Nordic region is undergoing major developments. A Norwegian marine insurer giant has completed an acquisition a key insurer in the global renewable energy market,<sup>12</sup> and the addition of a conservative marine- and offshore-focused insurer to onshore business is an indication that the renewable energy market is shifting drastically. Other P&I clubs will be assessing their business model and treaties to decide if they can compete across exposures.

Meanwhile, some major Nordic-based Property and Casualty (P&C) insurers are de-risking their portfolios, including their renewable energy books. Capacity is opening up for other markets and we are seeing more co-insurance policies and smaller line-sizes, which is giving access and capacity to additional markets, and inviting new carriers to enter or expand in the Nordics. This is healthy for the region and for handling larger claims.

Looking ahead, the outlook is increasingly positive, especially in offshore wind, where strong industry engagement is driving renewed optimism across the Nordic market. As industrial policy, innovation and investments improve, the region is set for an exciting year of progress, driving new opportunities within the evolving energy landscape.

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