

Innovation and collaboration key for sustaining Asia's renewable energy boom

Creating financial resilience for sustained progress in renewable energy in Asia will require greater collaboration, research, external capital and a seat at the table for insurance

The recent impacts of Super Typhoon Yagi on a Hainan wind farm left several huge turbines severely damaged. Notably, these losses occurred while the turbines were not operational, as they were undergoing upgrades. It underscores the challenges insurers face as they navigate unforeseen and evolving risks in this rapidly growing sector.

Global renewable energy production is racing ahead, with the International Energy Agency predicting it will surpass coal as the world's main electricity source next year. Remarkably, solar and wind alone are expected to meet around three-quarters of future global electricity demand.

Progress is also being made in the regulatory landscape surrounding this energy transition. In January 2024, China officially relaunched the China Certified Emission Reduction scheme, which is crucial for establishing a voluntary carbon market. In May, Japan introduced legislation to enhance the business environment for carbon capture and storage technology, as part of the broader strategy to achieve net-zero carbon emissions by 2050.

While we cheer these advancements, the reality is that there is insufficient capacity in global insurance markets to offer adequate protection for such valuable, long-lasting assets. The challenges of pricing and managing risk in this sector are multifaceted, stemming from the rapid evolution of technology, growing natural catastrophe risk and communication gaps among stakeholders.

The first challenge is that the risk landscape is highly volatile due to the swift advancement of technology, which introduces new and unpredictable risk scenarios that are challenging to insure.

Second, insufficient historical claims data and the challenges in modelling natural catastrophe risks – exacerbated by shifting weather patterns – hinder the assessment of the unique risks associated with

renewable energy. This prevents insurers from committing the desired levels of protection.

Finally, communication gaps between insurers, finance providers and project developers hinder the effective provision of coverage. Typically, developers of a renewable energy project seek insurance after they have already secured financing from a bank. By the time they reach out to the insurer, they may be disappointed to find that the protection they seek is inadequate or too pricy, owing to changes in the associated risk.

Fortunately, the insurance sector continues to innovate to meet these challenges.

The insurance industry is actively collaborating with modelling vendors to consolidate the necessary knowledge for quantifying risk arising from natural catastrophes affecting renewable energy projects. At Guy Carpenter, our marine and energy team developed an offshore wind solution to enhance accumulation risk analysis and event response, collaborating with Marsh and utilising GC AdvantagePoint® to better support our clients.

In December 2023, the ASEAN Reinsurance Working Committee established a regional renewable energy pool aimed at providing adequate coverage in the region. Guy Carpenter is supporting this initiative as the sole broker, facilitating collaboration and skill sharing among stakeholders.

This green pool solution serves as a valuable template for other regions to adapt in addressing the challenges of providing protection for renewable energy projects.

Additionally, we are seeing reinsurers modify existing solutions for the renewable energy space. Treaty reinsurance deals in China that cover offshore wind farms exemplify this trend.

Guy Carpenter continues to assert that collaboration among governments, investors, insurers and reinsurers is vital to mitigate risks and support net-zero goals. We are committed to embracing new technologies and applying innovative approaches, and we will continue to play a part in ensuring continued growth in renewable energy in the region.



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