

Renewable Energy Risk Management

Reducing risk and building resilience in
the renewable energy industry



Renewables will make up nearly 20% of the energy consumption mix by 2030, up from 13% in 2023.¹

49% of renewable energy projects were canceled permanently due to permitting issues, and 34% faced significant delays.²

Some of the essential rare earth materials used to produce electric vehicles and wind turbines will face a 50-60% shortage by 2030.³



Reducing Risk and Building Operational Resilience

Renewable energy continues to shape the global economy. Businesses working in this industry need to manage increasing demand, new energy targets, innovative technologies and a complex regulatory environment. From solar and wind generation to battery storage and infrastructure, the renewable sector is vulnerable to several known and emerging risks.

At Zurich Resilience Solutions, we provide proven risk management solutions for the growing renewable energy sector. Backed by industry experience and data-driven insights, we help businesses to limit exposure and improve operational decisions.

Benefits of Risk Management for the Renewable Energy Sector



Extreme weather and climate resilience

Visibility over extreme weather events and climate risks helps renewable energy companies build resilience.



Strengthened cybersecurity measures

Technology assessments and risk awareness initiatives limit data breaches and unauthorized system access.



Enhanced workplace health and safety

Workplace awareness and training programs help to reduce accidents and injuries across renewable energy sites.



Reduced property and equipment losses

Property, infrastructure and equipment inspections highlight physical vulnerabilities across the built environment.



Improved supply chain resilience

Vendor management and contingency measures build resilience by reducing the likelihood of supply chain disruptions.



Business continuity and reputation management

Business continuity planning, response and recovery measures support operational resilience and stakeholder trust.

Zurich Resilience Solutions helps organizations address the risks the manufacturing industry faces head on with a simplified process that promotes safety, minimizes losses, and enables efficiency.

To learn more about our manufacturing risk solutions, visit us.zurichresilience.com/industries/manufacturing

Renewable Energy Solutions

The risk profile in the renewable energy sector is both diverse and challenging. With growing demand and dynamic regulations, renewable energy businesses need clarity more than ever before. We provide tailored risk management services to help companies understand and mitigate risk on their own terms.

Our services include:



Construction risk management

We offer engineering inspections and assessments during the design and construction of renewable energy facilities. From location-based threats to fire and flood reviews, we identify and quantify strategic vulnerabilities and implement tailored actions to reduce exposure.



Property and equipment reviews

We provide detailed reviews of working facilities, connected infrastructure and maintenance programs. Our team provides performance evaluations and plant utilization reviews for complete visibility over your assets and operation.



Regional risk solutions

Renewable energy risks differ considerably based on location and jurisdiction. We offer region-specific solutions based on a deep knowledge of the risk landscape, combined with data-driven insights from established renewable projects and markets.



Cybersecurity support

Unauthorized system access can disrupt energy operations and cause severe data breaches. Our team can review your current cyber posture, evaluate your existing monitoring platforms and carry out detailed assessments of your existing facilities and equipment.



Extreme weather and climate readiness

Renewable power companies are part of the new energy solution, but that doesn't make them immune to climate-based risks. We offer climate impact analysis based on multiple planning scenarios to help you manage extreme weather events and policy changes.



Continuity and resilience planning

Our risk management services are designed to support business continuity in the renewable sector. Our team can help minimize operational disruptions and enhance project resilience to improve outcomes.

Sources:

1. International Energy Agency. (2024). *Renewables 2024: Chapter 1 – Global overview*. [IEA](#).
2. Buff-Tabackman, E., & Laestadius, L. (2022). Sources of opposition to renewable energy projects in the United States. *Energy Policy*, 162, Article 112784. [ScienceDirect](#)
3. McKinsey & Company. (2023). *The net-zero materials transition: implications for global supply chains*. [McKinsey & Company](#). [Report on raw materials demand & shortages]



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