

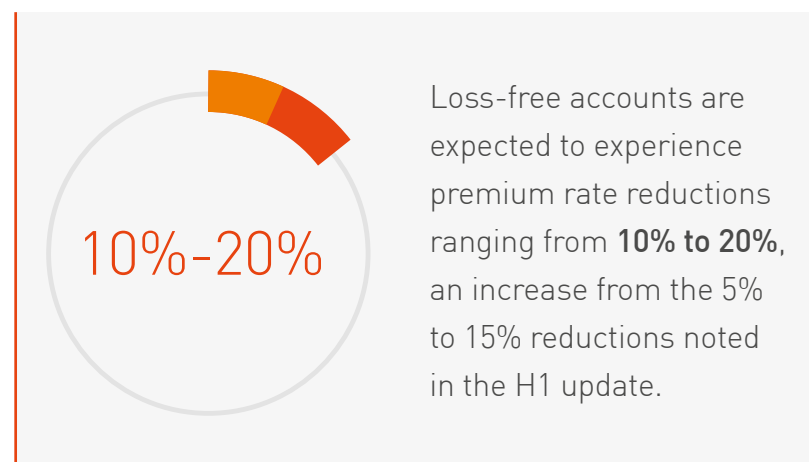


# RENEWABLE ENERGY



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Forecasts for the second half of 2025 suggest a competitive market, driven by the expanding capacity of lead and follow insurers.



The next significant influence for onshore wind will likely be the deployment of 7MW-8MW onshore wind turbines, which are currently being installed. Historically, new wind technology tends to face initial challenges as performance and operations begin, which could impact claims ratios.

Consequently, these larger wind turbine generators (WTGs) and their components are being underwritten with increased deductibles and site-specific premium rates to reflect normal loss expectancies and revenue loss from associated lead times.

However, any claims related to the new larger WTGs should be sustainable. The market has stabilized in recent years, thanks to a larger premium pool generated from existing global wind capacities, providing a buffer against potential loss spikes.

Regarding solar energy, technology continues to improve, especially in relation to hail and wind mitigation measures. While weather event forecasting has improved and allows for mitigating action, the implementation process for new projects is lengthy, and retrofitting existing projects remains limited.

Battery Energy Storage Systems (BESS) are experiencing a decrease in premium rates due to an improving claims ratio and advancements in technology performance. Despite headline-grabbing incidents, such as the significant fire at the Moss Landing project in California in early 2025, which resulted in an estimated USD400 million insurance claim, the overall risk profile of the BESS sector is improving.





Looking forward, the BESS industry is likely to continue reducing its fire risk exposure with improved battery technology and careful siting and layout of facilities. Enhanced monitoring and control of battery performance and safety, aided by AI and IoT sensors, will play an essential role in making BESS more attractive to investors and insurers.

In the context of offshore wind, the demand for net-zero emissions by individual countries remains robust, which has positively impacted recent announcements for continued growth in regions such as the Celtic Sea, the Baltics and the Philippines. However, this optimism must be balanced with the reality of rising costs, supply chain challenges and execution risks.

Several offshore wind projects have recently been cancelled or postponed, including Ørsted's Hornsea 4 project in the UK and Taiwan's cancellation of development rights for two offshore wind projects. Conversely, Equinor has seen progress in the US, with the construction on the Empire Wind 1 project resuming.

**In an effort to address supply chain constraints, particularly for turbines, Chinese original equipment manufacturers (OEMs) like Mingyang are expanding their operations beyond China, with plans to invest in and build a wind turbine factory in Scotland.**

However, these plans have faced intense scrutiny due to security concerns about critical national infrastructure, as voiced by Wind Europe and the governments of the UK and Norway, influenced by the US.

Insurers remain cautious about the insurability of floating projects. However, leading carriers such as NIORD and Gard in Norway, Scor in Paris and London, and Lloyd's and London companies, along with their LMA body, are actively engaging in discussions to find viable solutions for their existing and prospective clients.

## TOP TEN LARGEST POWER – RENEWABLE ENERGY LOSSES IN 2024

DOL	AREA	COUNTRY	LOCATION	LAND/ OFFSHORE	OP/ CAR	CATEGORY 1	CATEGORY 2	CATEGORY 3	CAUSE	PD/ACTUAL US\$	BI/ACTUAL US\$	TOTAL/ ACTUAL US\$
04/16/2024	Middle East	UAE	Dubai	Land	OP	Power Renewable	Solar	Solar panels	Windstorm	101,000,000	32,100,000	133,100,000
01/29/2024	Europe	UK	Northumberland	Land	OP	Power Renewable	Biomass	Generator	Mechanical failure	13,800,000	38,500,000	52,300,000
08/17/2024	Far East	Philippines	Leyte	Land	OP	Power Renewable	Geothermal	Turbine Steam	Mechanical failure	5,000,000	46,000,000	51,000,000
07/08/2024	Far East	Philippines	Leyte	Land	OP	Power Renewable	Geothermal	Turbine Steam	Mechanical failure	4,400,000	32,000,000	36,400,000
01/01/2024	Far East	Singapore	Singapore	Offshore	CAR	Power Renewable	Vessel	-	Faulty work/op error	29,000,000	-	29,000,000
04/16/2024	Middle East	UAE	Dubai	Land	OP	Power Renewable	Solar	Various	Windstorm	18,250,000	9,750,000	28,000,000
07/01/2024	North America	Canada	Northwest Territories	Land	OP	Power Renewable	Hydro	Turbine	Ice/snow/freeze	28,000,000	-	28,000,000
09/27/2024	North America	USA	Virginia	Land	OP	Power Renewable	Hydro	Various	Windstorm	25,000,000	1,850,000	26,850,000
09/14/2024	North America	USA	New York	Land	OP	Power Renewable	Hydro	Dam	Fire no explosion	20,000,000	-	20,000,000
04/07/2024	Europe	Norway	Telemark County	Land	OP	Power Renewable	Hydro	Generator/ power	Electrical Failure/ Breakdown	2,524,600	16,887,000	19,411,600

Total 2024 renewable losses (56): **USD603,032,040**

Total top ten losses: **USD424,061,600 = 70%**

Operational (44): **USD526,270,790**

Construction (12): **USD76,761,250**

Losses are incurred in actual amounts, as reported, not indexed, sourced from the Willis Towers Watson's energy industry loss database for ground-up losses of USD1 million or more at the time of loss. Note that 2024 figures are subject to further development, both in terms of frequency and severity of losses as of June 26, 2025.



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