

# What's a major risk for solar projects?

This is the gravest threat for solar in the months ahead...



Catastrophe & Flood

By Daniel Wood

Oct 08, 2024

It's October and according to the Bureau of Meteorology (BOM), October to April is peak time for severe weather in Australia. The risks – well known to insurers and their customers – include heatwaves, bushfires, tropical cyclones, severe thunderstorms and floods.

For the country's growing number of solar installations, hail is the gravest threat in the months ahead.

"Hailstorms can come out of nothing very quickly," said John Rae (pictured above). "If you don't have your risk mitigation process procedures in place you can have some serious issues."

Rae is head of renewable energy Australasia at WTW, the global risk management and insurance brokerage.

## Hailstone size is a big problem

Despite improvements in solar panel design, the sheer size of hailstones is still a major issue.

"I still don't think we're quite there yet in terms of looking at the hail resistance of the panel," said Rae.

However, the Melbourne based broker said a key part of hail risk mitigation is procedural.

"A lot of these projects are on a tracking system on a single axis, he said. "If they know a hailstorm is coming, they'll stow the panels."

When the panels are stowed the hailstones impact the panels at an angle.

"The hail is going to hit the panel and glance off so it's less likely to cause damage in that situation," said Rae.

He said some projects have considered other innovations to mitigate hail, including hail nets similar to those used to protect parked car fleets. Research efforts are also being invested in manufacturing solar panels from a more resistant material than glass.

However, despite "different variations of risk mitigations, some viable, some not viable," Rae said insurance losses from hail damage continue to be "deeply concerning."

## Accumulation risks

In Australia, the federal government's approach of clustering renewables operations together isn't helping.

The government hopes more than 30 Renewable Energy Zones (REZs) around the country will start moving forward in the coming years. In June, the Central West Orana Renewable Energy Zone (REZ) became the first REZ in Australia to secure planning approval for its transmission lines.

"If you put that all in a single area in very close proximity to one another, insurers have to analyse the possibility that a single hailstorm event could come in and wipe out several projects, not just the project at hand," said Rae.

Insurers call this risk accumulation. "So a large amount of assets of high value in a small area with exposure to nat cat," said Rae.

## Defects risks

Another risk challenge facing solar and other renewable energy projects is defects.

One major reason, said Rae, is that renewables technology is moving so fast. He gave the example of a wind turbine which needs to perform about 8,000 hours of operation to get turbine certification.

"Sometimes new turbines have been sold to developers without type certification yet," said Rae. "Insurers see that as a big defect risk because they don't have the evidence that it will be successful so they don't provide defect coverage until it reaches time certification."

## Broker opportunity

Despite the challenges, industry stakeholders see solar and renewables as a major broker opportunity.

In the United States, Europe and Australia, a mixture of government incentives and investment opportunities are providing insurance brokers with opportunities in the space.

"I anticipate that brokers who have commercial portfolios, so brokers of businesses, are going to start seeing more and more of solar and adjacent technologies coming from their primary customer base," said Jason Kaminsky, CEO of kWh Analytics.

Kaminsky's United States-based firm is a renewable energy underwriter that combines risk management and data analytics with insurance offerings. He said quite a diverse range of brokers are already involved in the solar industry.

One driver of broker opportunity, he suggested, is as risk advisers who can help underwriters better understand the risks around the natural catastrophe exposures faced by solar operations.

## 82% of the country's energy from renewables?

According to the Clean Energy Council about 40% of Australia's energy now comes from renewable sources. However, that number needs to double if the country is to meet the government's target of 82% renewables by 2030.