

Severe Weather Risk Management for Solar Farms



TECHNOLOGY FOR EVERY STAGE OF THE SOLAR FARM LIFECYCLE:

- **Site Planning:** Use hyperlocal weather data for site identification, solar assessment, and plant design.
- **Plant Construction:** Avoid unexpected damage and delays while keeping workers safe during construction.
- **Power Generation:** Enhance performance and optimize operational resilience in the face of weather challenges.

Strengthen solar farm performance and efficiency against extreme weather

As renewable energy's role in power generation grows, solar farms are increasing in number and strategic importance. Unfortunately, severe weather events like hail, strong wind, and thunderstorms pose significant challenges to solar farm operation, especially during this time of transition. Weather threatens the efficiency and continuity of operations at solar farms while also creating risks to worker safety.

That's why AEM offers weather intelligence and environmental monitoring solutions tailored to the challenges of operating solar farms. We provide utilities and other renewable farm operators with data-driven insights for the entire solar farm lifecycle, from planning to longterm management and maintenance. We provide the weather expertise and resilience providers need to take their solar transition to the next level of maturity.

Benefits:



Optimize performance and operational efficiency, ensuring smooth power generation even in the face of weather-related challenges.



Protect workers on the solar farm from potential hazards caused by unpredictable weather.



Minimize unexpected damage to infrastructure and increase weather-responsive maintenance.



Seamlessly comply with regulatory and reporting requirements using accurate, real-time data from a hyperlocal sensor network.



Powering up photovoltaic operations

AEM's cutting edge weather monitoring tools are designed to optimize solar plant operations, protect property, and safeguard lives amidst various environmental conditions. Our product suite offers a flexible and reliable solution for enhancing the efficiency of your solar energy systems. It meets the stringent International Electrotechnical Commission (IEC) 61724-1 standard for Class A PV systems.



Bringing together industry-leading technology

At AEM, we are building an innovative portfolio of technology solutions to mitigate the growing risk of extreme environmental events. Our flexible Solar Farm solutions combine best-in-class sensors, data, and software from our Lambrecht meteo, OneRain, and Earth Networks brands.

LIGHTNING DATA

Precise lightning detection from The Earth Networks Total Lightning Network* that protects workers and minimizes disruptions.

CONTRAIL

Complete situational awareness platform that turns data from environmental sensors across your solar farm into actionable insights.

PTZ CAMERA

Intelligent high-definition cameras to monitor weather-related risk and deliver real-time views of your entire PV system.

MODULE TEMPERATURE SENSOR

Durable and reliable sensor designed specifically for measuring panel temperature on PV systems.

SUN[E] MODBUS PYRANOMETER

Innovative heating and ventilation technology that accurately measures global radiation for Class A PV monitoring systems.

U[SONIC] WS6

Robust, low-maintenance sensor that provides high-resolution measurement of temperature, wind, humidity, and more.

RAIN[E] RAIN GAUGE

Compact weighing precipitation sensor that delivers the most accurate rainfall measurement in a durable, low-maintenance design.