VAISALA

Global Lightning Dataset GLD360 for Wind Energy

The foundation for highly accurate lightning detection across every country and ocean

Vaisala Global Lightning Dataset GLD360, part of our Xweather family of subscription based products, delivers reliable lightning data for a wide range of operational and warning applications, so you can balance operational efficiency with employee and public safety anywhere your energy projects might be. GLD360 data is trusted by the world's leading meteorological, governmental, and commercial entities — including the U.S. National Weather Service, FAA, and armed forces.

Vaisala GLD360 offers unmatched detection efficiency and industry-leading location accuracy from a ground-based global sensor network that can detect thunderstorms up to 10,000 kilometers away, track their trajectory and intensity, and support hazardous weather warnings — even outside the range of radars. GLD360 is a global lightning detection network comprised of sensors designed to provide uninterrupted global coverage, detect lightning wherever it occurs on land or sea, and make crucial insights available in real time. For energy stakeholders wishing to incorporate the best storm awareness into planning and operations, there is no dataset in the world quite like GLD360.

Key benefits

Available today with no capital costs
Get almost immediate access to GLD360 real-time data without having to purchase, install, or maintain any sensor equipment or processing systems.

Smarter decision-making
GLD360 delivers reliable lightning data you can trust, enabling confident and justifiable decision-making at any stage in the energy life cycle.

Greater safety while minimizing downtime
Early warnings allow you to better anticipate a lightning threat before it reaches your wind farm and helps you keep workers safe while reducing the length of safety shutdowns.

Lightning coverage when it matters most
Standardization across all user facilities results in the highest quality lightning data anywhere in the world, which is available better than 99.99% of the time.

Global Lightning Detection Network at a glance

Applications

- Optimizing operations by implementing standardized lightning safety procedures in a single location or across global facilities.

- Providing instant access to the highest quality real-time lightning data for any renewable energy organization, in any country.

- Establishing an early warning system to alert people about hazardous weather conditions and lightning.

- Providing critical information for electric power generation companies to prepare for storm events, to support system reliability.

- Analyze historical lightning trends supporting site planning activities including lightning protection system design.

Key features

A single source for global coverage that captures lightning and storm data for even the most remote locations on land or on sea and lets you access it when and where you need it.

Flexible, fast data delivery with ~30-second latency.

Industry-leading performance in detecting all thunderstorms with unmatched cloud and cloud-to-ground flash detection efficiency and location accuracy.

Comprehensive, actionable data that can be utilized to make well-informed operational safety decisions and identify potential asset damage.

Why Vaisala for renewable energy?

We are innovators, scientists, and discoverers who are helping fundamentally change how the world is powered. Vaisala elevates wind and solar customers around the globe so they can meet the greatest energy challenges of our time.

Our weather and environmental monitoring solutions for renewable energy are guided by several key priorities:

- Thoughtful evolution in a time of change

- Making renewable energy smarter at every stage

- Extending our legacy of leadership

Vaisala is the only company to offer 360-degree renewable energy solutions — from sensors and systems to digital services and actionable intelligence — nearly anywhere on the planet (and even on Mars). Every Vaisala solution benefits from our 85+ years of experience, pioneering deployments in 170+ countries, and unrivaled thought leadership.

Our innovation story, like the renewable energy story, continues.

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vaisala.com/wind-energy