

# Forecaster for solar or wind energy

**VAISALA**

Product Spotlight

**Industry-leading weather forecast data to maximize energy production and value, mitigate risk, and optimize assets**

Effective and efficient renewable energy management depends on optimizing the intermittent power of the wind and sun integration into the grid. Supported by cutting-edge science with robust data assimilation and supercomputing capabilities, Vaisala Forecaster for wind and solar energy, part of our Xweather family of subscription based products, provides exceptionally accurate energy forecasts to help you effectively manage investments, reduce risk, and gain a competitive edge in the energy market.



## Key benefits

The best available data quality in the industry. Statistically integrates on-site data to calibrate forecasts to the area's distinct climate & geography.

Wind energy tools include wind power forecast, weather forecast, accurate reliable prediction intervals & verification tools.

Optional features, such as real-time project data monitoring and higher resolution model simulations, further expand capacity. All forecasts are available through a customizable graphical user interface and API.

Vaisala's forecaster has been in operation for over 20 years and is relied on by some of the world's leading renewable energy operators and traders. In cooperation with customers & national laboratories, Vaisala continuously refines and improves the solution and incorporates the latest advances.

Customized forecasts for profitable decisions with each forecast tailored to its unique local environment & project operating data, resulting in reliable & customized predictions to drive decision-making.

## Why Vaisala?

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 pioneering approach reflects our priorities of thoughtful evolution in a time of change and extending our legacy of leadership.

Vaisala is the only company to offer 360° of weather intelligence for smarter renewable energy, nearly anywhere on the planet. Every solution benefits from our 85+ years of experience, deployments in 170+ countries, and unrivaled thought leadership.

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

For wind energy applications, Forecaster uses a combination of statistical algorithms, highly customized mesoscale Numerical Weather Prediction (NWP) models, machine learning artificial intelligence models, and publicly available forecasts. The result is accurate wind forecasts that incorporate the actual operating characteristics of each project and the most advanced weather forecasts available.

For solar energy applications, Forecaster relies on superior modeling techniques to provide accurate irradiance and power forecasts specific to a solar project's unique environment, with a prediction interval ranging from 5 minutes to 240 hours in the future.

The resulting forecasts are available as site-specific or regional tools, providing asset owners, project managers, energy traders, and schedulers superior information to make confident, data-driven decisions.

### Applications:

- Site-specific wind forecasting
- Regional wind forecasting
- Site-specific solar forecasting
- Regional solar forecasting
- Vaisala Energy Budget Outlook Tool

