

# Wind & Solar Power Generation

Accurate and up-to-the-minute weather analyses are vital for day-to-day operations across the energy sector. MeteoGroup's forecasts contribute towards avoiding penalties and increasing revenue on both wind/solar park and portfolio level. For grid operators, MeteoGroup's wind and solar power forecasts ensure maintenance of grid stability at any time.

## Wind Power Forecasts

A combination of multiple models and statistical forecasting techniques allows us to deliver output for single farms, regions or portfolios. We provide forecasts with 15 minute granularity and intra-day updates, along with long-term forecasts for up to 15 days ahead, including probabilistic forecast uncertainty parameters.

## Hub Height Wind Forecasts

Tailored to your specific operational requirements, we provide hour by hour hub-height weather data for all relevant parameters, invaluable for all on and offshore wind power generation projects at any stage of the life cycle.

## Solar Power Forecasts

Using a combination of satellite data, statistical techniques and the best high-resolution forecasting models, MeteoGroup provides a precise forecast for the power output of your solar park or portfolio, enabling you to optimise performance and revenue.

## Site-specific Radiation Forecasts

Our site-specific radiation forecasts range from park-specific to portfolio forecasting and are available up to 15 days ahead. In addition, we provide monthly and yearly verification reports, a demonstration of our commitment to forecast quality and its continuous improvement.

## LightningTracker

Lightning poses severe safety risks to power generation activities, MeteoGroup invests in data of the highest quality to prevent these risks. With a high-density network of lightning sensors our lightning forecast accuracy is second to none. As a result, LightningTracker presents accurate, real-time lightning data, allowing you to assess the possible impacts on your operations.

## NowCasting Pro

By delivering high-resolution metocean forecast services, this operational planning tool provides quality forecast information to enable "waiting-on-weather" decision-making, thereby increasing safety and lowering the environmental impact of offshore operations.

# Site-specific Power and Hub Height Wind Forecasts: Reliable weather data for accurate decision making

We use the world's best weather models and ensemble forecasts to develop the MeteoGroup forecast model. As a result, our clients receive highly accurate site-specific wind power and hub-height wind forecasts, enabling them to avoid penalties and optimise power marketing strategies.

## Focus on intraday & day ahead

The MeteoGroup forecast model is optimised for intraday and day-ahead forecast periods, delivering high-frequency output with 15 minute granularity.

## On-site observations

Where on-site weather and power data is available (historical or live) we can apply complex statistical corrections of the forecasts and filtering techniques to further improve forecast accuracy, resulting in a higher performance of your wind power assets.

## Probabilistic forecasts

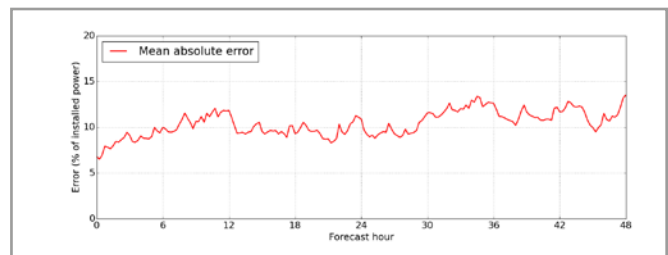
Short-term probabilistic forecasts allow for an increased level of confidence in estimations of wind power output. Developed to assess risk in critical weather situations, MeteoGroup's probabilistic forecasts enable profound risk analysis and confident decision making.

## Consultancy & Monitoring

All our services are supported by monitoring and consultancy from our international team of more than 150 meteorologists, available 24/7/365.



Example time series forecast compared to observed power production



Quality analysis example for intraday and day ahead wind power forecasts

## Contact us

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MeteoGroup is a leading full-service, global weather business. Our team of expert and experienced meteorologists is available 24/7/365, delivering accurate and dependable weather information to weather-critical businesses. Founded in 1986, the company has an unrivalled reputation for quality and innovation in weather forecasting.