

Meteomatics Forecasts U.S. Energy Demand and Usage Based on the Weather

The Swiss Company Trusted by Tesla and Toyota to Predict and Optimize Energy Consumption Brings Its Weather Intelligence to U.S. Companies and Investors

EXTON, PENNSYLVANIA, UNITED STATES, September 7, 2023 /EINPresswire.com/ -- [Meteomatics](#), the weather intelligence and technology company that enables the world's leading companies to accurately forecast the weather's impact on business, today announced its plans to expand its work with energy companies and investors in the U.S. The company is currently the primary weather data source for 80% of the leading European electricity companies, including ENEL, EDF and Engie. Tesla Energy, Toyota, E.ON, Heimdall Power, and Stadtwerke München rely on Meteomatics' precise weather intelligence to forecast energy demand and consumption, or to improve product design. The company, which recently established dedicated U.S. operations, is now making its technology and data available to traditional and renewable energy companies and investors stateside. Working with Meteomatics, users will be able to improve energy management, navigate stressors on the power grid, minimize risks, and optimize their earnings.

Global energy demand is predicted to [increase by 23%](#) by 2045, but traditional energy sources alone can not meet these needs. This—paired with the commitment of [100+ countries](#) to reach net zero emissions by 2050—is driving an increased reliance on renewable energy sources like solar, wind, and hydropower. Companies' ability to contribute to decarbonization while working within the constraints of the power grid comes down to being able to predict the weather's disproportionate influence on spikes in energy demand and usage.

Considering that even a 1% difference in forecast error can trigger economic losses of several million dollars per year, companies need to accurately estimate when, where, and how much energy will be fed into the grid, at any time and any coordinate in the world. Meteomatics designed its weather data gathering, modeling, and distribution models to deliver these companies the highest accuracy weather intelligence available.

The company pairs its hyperlocal weather data with live data from companies' respective power plants to deliver intra-day and day-ahead energy forecasts for solar, wind, and hydropower.

"Meteomatics helps us in our quest for continuous improvement. The accuracy of its weather data helps us to plan better, to increase the efficiency of our energy systems, and to reduce

costs,” said Kevin Rosati, Senior Facilities and Energy Management Engineer, Toyota Europe.

Using Meteomatics’ weather and climate platform, energy companies and investors in the U.S. can now easily access, analyze and visualize complex weather data to make informed decisions based on the weather:

Predict energy demand and usage down to street level.

Weather conditions contribute to shaping how individuals and companies utilize energy. For example, low temperatures increase heating energy usage, while high temperatures spike air conditioning demand. With energy forecasts, companies can better prepare for energy consumption in specific areas and locations and address heightened demands during extreme weather situations.

Forecast energy production from renewable sources.

The production of renewable energies experiences significant fluctuations, influenced by both daily weather conditions and seasonal variations. With accurate weather data, companies can understand how much energy they’ll produce today, tomorrow, or in the days following from solar, wind, and hydropower. This helps to determine the most profitable power trading strategies, optimizing the performance of financial trading. Companies can also better assess the energy potential of specific locations based on wind speeds or global radiation of the site. This increases the reliability of renewable energy sources in power grids and allows them to be used cost-effectively.

Assess energy prices and investments in real time.

Energy markets are affected by the slightest changes—even a minor overnight change in a weather model or forecast can impact prices. Energy companies, as well as investors and traders, need hyperlocal weather data and forecasts to see how the weather affects energy production and the grid. This helps energy companies to set prices on their energy trading and helps traders and investors to adequately assess energy investments. The more precise the forecast and faster a coming change can be spotted, the more profitable energy investments will be.

Protect energy infrastructure.

Weather conditions can stress and damage power plant infrastructure and cause inaccuracies in reporting. For example, wildfires and hurricanes specifically impact transmission lines, while droughts can damage the reservoirs of hydropower plants. With accurate forecasts, companies can better protect consumers and infrastructures and avoid interruptions to intraday operations. For instance, EU-based Heimdall Power is delivering an average 25% increase in transmission capacity for its high-voltage power lines through its work with Meteomatics.

“Weather plays a substantial role in meeting the power needs of the world, and we’re currently experiencing the effects of this in the U.S. as we face heightened energy demand due to extreme weather and record high temperatures,” said Paul Walsh, CEO of Meteomatics N.A. “Over the past decade, Meteomatics has made weather data easily accessible and valuable to businesses, and we’re looking forward to working with more U.S. energy companies and investors to guide critical decisions, optimize operations and maximize their yields.”

“The capabilities and ease-of-use of the Meteomatics platform have helped us increase productivity and have streamlined our workflow at least twofold,” said Nick Lilja, Meteorologist, Cheniere Energy, Inc. “The data and insight we receive from Meteomatics are the absolute best—we are frequently discovering new and useful data.”

As part of its expansion into the U.S., Meteomatics has opened its North American headquarters in Exton, Pennsylvania.

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About Meteomatics

Meteomatics is a weather intelligence and technology company that enables precision forecasts of the weather’s impact on businesses anywhere in the world at any time. More than 450 companies, including Tesla, Swiss Re, Airbus, Toyota, Volkswagen, and EDF Energy, rely on Meteomatics for weather data that can significantly impact everything from energy savings, logistics, and process automation to risk management and product design. The company’s robust approach to weather data collection, modeling, visualization, and delivery rivals even the most sophisticated government and commercial services. Its autonomous Meteodrone, paired with high-resolution weather models, enables granular visibility (down to a single square km) into weather phenomena that traditional weather sensing technology does not regularly or accurately observe. Meteomatics is headquartered in Switzerland, with local U.S. operations based in Pennsylvania.

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