

More Flexible, Faster and More Efficient

How BKW Benefits From the Meteomatics Weather API



Management Summary

The weather has a considerable influence on the production of renewable energies. As a relevant influencing factor, it thus affects forecasts for electricity production and also has an impact on electricity trading and the associated sales. In this article, you will learn how the Meteomatics Weather API makes the procurement of weather data at BKW easier, faster and more flexible, thus facilitating the integration of renewable energies into the electricity market.

Renewable Energies Are Highly Dependent on the Weather

The power grid should be constantly in balance, so supply and demand must always be aligned. For energy suppliers, the large fluctuations in the production of renewable energies therefore represent a challenge in terms of ensuring this balance. Due to the continuous expansion of renewable energies and the aspired energy transmission, the topic gains additional ecological and social importance.

A large part of the Swiss electricity mix consists of hydropower. The inflows used in this process are subject to seasonal fluctuations. In the rainy summer months or during the snowmelt in spring, the inflow is correspondingly greater than in winter, when precipitation remains stored in the form of snow. The principle is similar for wind and solar power production, which is even more directly dependent on wind and global radiation.

Renewable Energies: The Power Sources of the Future

With an installed capacity of over 3,300 megawatts and production facilities in more than 5 countries, BKW is the third-largest Swiss electricity company. In addition to its own plants, BKW also manages numerous third-party plants for the production of renewable energies. Around three-quarters of BKW's electricity mix already consists of hydro, wind and solar energy. And this share is to be further expanded in the future so that the goals of the energy transition can be achieved and the ecological footprint greatly reduced. As an innovative company with a sense of social responsibility, it is clear to BKW that renewable energies must be at the heart of energy systems in the future so that the energy transition can be realized. With the expected increase in renewable energies in the electricity mix on offer, precise weather forecasts will also become increasingly important.

Much of the hydroelectric power is also produced in the Alps – a region that is subject to very rapid weather changes. Reliable forecasts and data are therefore directly relevant to BKW's success in optimally integrating renewable energies into electricity trading. In order to know in advance what quantities of electricity can be fed into the grid

and when, and to be able to meet energy demand, energy companies need precise weather data and power forecasts that they can access quickly and flexibly.

BKW Needed a Simple and Fast Process

With previous weather data deliveries, BKW usually had to request the weather data individually and then sometimes had to accept longer waiting times for it to be made available. This particularly affected site-specific raw data and parameters such as precipitation, wind and temperature in Switzerland and Europe, which were used for production and consumption forecasts and analyses in electricity trading. In the case of new locations or changes in requirements, BKW sometimes had to wait several weeks to receive the data. BKW therefore wanted to make this process simpler, faster and more flexible for the future in order to be able to react better to the market.

Meteomatics Weather API: Flexibility and Speed for BKW

Flexible access to this weather data is essential, which is why BKW looked around for a new solution some time ago. To find a new solution, BKW benchmarked various weather providers in terms of data quality and accuracy, flexibility of access, and the expected costs. "In addition to the quality and cost aspect, which of course had to be met, the decisive factors for us were the high flexibility and choice in data procurement," reports Sibylle Wiederkehr, Senior Operations Research Analyst at BKW. "Meteomatics clearly stood out in this respect".

With the availability of over 1800 different weather, environmental, and water parameters in over 25 different models, such as ECMWF or UKMO, through a single interface, BKW no longer needs to request weather data, wait for it, and process it once it is received, but can simply access it as needed through Meteomatics' weather API. Sibylle Wiederkehr continues, "The fact that we can also conveniently obtain historical weather data and forecasts for the models and parameters via the same interface is another big plus for us." In particular, BKW relies on raw weather data for locations in Europe and Switzerland so that it can develop its production and consumption forecasts and respond flexibly to requirements in the market. In addition, the flexible sourcing of all data enables the trial and testing of new products and services, allowing innovations to be implemented more quickly.

This not only allows BKW to react more flexibly and quickly to new requirements, but also reduces costs and increases the quality of forecasts. This leads to a more efficient and successful integration of renewable energies into the electricity market, enabling BKW to steadily improve its renewable energy business. As a result, BKW is ideally placed to drive the economic expansion and integration of renewable energies even more strongly in the future.

« Meteomatics' weather API is unique in the market as it provides flexible and fast access to a huge amount of weather data in different data formats. »

Sibylle Wiederkehr, Senior Operations Research Analyst at BKW

Successful Cooperation Thanks to Customized Solutions for BKW

The dynamic changes in BKW's operational activities require a timely adaptation of weather data, e.g., when new production portfolios are acquired or existing ones are modified. Meteomatics has taken up, understood and implemented the specific wishes and requirements of BKW. Sibylle Wiederkehr continues: "With Meteomatics, we have a contact person who understands our needs very well. This means that even very specific requests, for example historical data or new industry-specific parameters, can be made available quickly and without complications." Meteomatics is proud of the good cooperation and hopes to be able to continue to provide BKW with the best possible support for the integration of renewable energies into the electricity market in the future. For Meteomatics, the expansion and economic use of renewable energies is a central concern for a successful energy transition, just as it is for BKW. Both BKW and Meteomatics are convinced that technologically advanced solutions are necessary to achieve this goal. BKW and Meteomatics are therefore proud to play a leading technological role in this field.

About BKW

The BKW Group is an internationally active energy and infrastructure company headquartered in Bern. It employs around 11,000 people. Thanks to its network of companies and its innovative technologies, it offers its customers comprehensive expertise in the areas of infrastructure, buildings and energy. It plans, builds and operates energy production and supply infrastructures for companies, private individuals and the public sector, and offers digital business models for renewable energies. Today, the BKW Group's portfolio ranges from planning and consulting in engineering for energy, infrastructure and environmental projects to integrated offerings in the field of building technology and the construction, service and maintenance of energy, telecommunications, transport and water networks.

BKW AG registered shares are listed on the SIX Swiss Exchange.

Contact Us – We Are Here for You

Contact us if you have questions about specific industry applications or if you need advice from our experts.

We are looking forward to receiving your message!



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