The Virtual Power Plant – successful in operation

The Virtual Power Plant is an energy trading platform. It integrates renewable energy sources and decentralized power systems into the electricity market and provides balancing power services. N-ERGIE can thus offer its customers a broad range of services to control energy. The Virtual Power Plant's capacity and the execution of calls to implement power on the pooled systems according to availability, reported consumers from industrial and business customers, connected via a Ten largest German electricity providers. It uses Marketing balancing power at N-ERGIE energy & meteo systems has decisively contributed to the integration of renewable energies into the electricity market. Thanks to individually developed interfaces, wind farms by different providers, as well as bio energy plants and emergency power units, among others. The turbines can be controlled similarly to a large power plant. The Virtual Power Plant is a modular software platform which effectively connects, coordinates and monitors decentralized systems also takes care of the hosting incl. 24/7 operations for you. It is a software-as-a-service solution, removing the need to create your own infrastructure. As a matter of course, energy & meteo systems also takes care of the transmission grid operator as well as precise real-time information on electricity production in the process. These data points for the transmission grid operator as well as precise real-time information on electricity production in the process. These data can be continuously compared with predictions and adapted to market requirements in seconds. Equipped with digital technology, energy & meteo systems GmbH consistently promotes a climate-friendly and secure energy production.

Our services – for integrating sources of renewable energy

Virtual Power Plant

- Software for the control, grid integration of renewable energies
- Remote control of decentralized generating facilities and consumers
- Planning of short-term market participation
- Planning and real-time control (primary, secondary and tertiary reserve)
- Management of power predictions and data
- Software as an add-on for EEX (EEX) trading

Wind and solar power forecasts

- Predictions for power output, wind and solar operations
- For individual power plants, power plants, control areas and grid areas
- Direct market participation for strategy

Solar power estimations

- Real-time estimation of the current production of solar power
- Multiple available models

Energy economic projects and studies

- For electricity, politics and science
- National and internal development projects

In addition, energy & meteo systems GmbH offers a broad variety of services to power brokers, electricity suppliers, public service providers, public utility companies, power producers, power plant operators and industrial enterprises.

The center control for decentralized energy systems

- For the connection to the Virtual Power Plant, we support any market participant with individual solutions for a quick and reliable entry into the energy trading market in renewable energy.
- For traders on the Virtual Power Plant, we provide the necessary software for the management of ancillary services (primary, secondary and tertiary reserve) as well as the marketing of balancing energy on desktop power plants. We can use power plants as a portfolio with various scenarios, including energy production, grid operation, regulating power demands, and transmission of energy service payments.

Key technology for renewable energies

With our Virtual Power Plant, we offer you an all-round, package solution for that brings you closer to the energy market. In doing so, our solutions are tailored to your unique needs. This means that our solutions make it easy to integrate new technologies and innovative processes into your business. Our experience in the field of renewable energy production and grid operation enables us to offer you efficient solutions that will help you to enhance the performance of your power plant. Whether you are looking for software solutions for energy trading, renewable energy forecasting, or any other aspect of renewable energy, we have the expertise and the tools to help you achieve your goals.

Your advantages in power trading

- Aggregation of renewable power sources on a wide scale: automation and control technologies for high-performance portfolios
- Determination of all production data, load forecasting
- Direct marketing of renewable energies in the international market, trading of optimal energy (as the spot market or embedded energy)
- Reduction of reserve costs and an alternative for all energy utilities

Connecting and tailor-made

For the connection to the Virtual Power Plant, we support any market participant with individual solutions for a quick and reliable entry into the energy trading market in renewable energy. Our solutions are tailored to your specific needs, ensuring that you get the best possible results from your renewable energy investments. Whether you are looking for software solutions for energy trading, renewable energy forecasting, or any other aspect of renewable energy, we have the expertise and the tools to help you achieve your goals.
The Virtual Power Plant is efficient integration of decentralized energy systems for the best electricity market results. The Virtual Power Plant by energy & meteo systems aggregates decentralized energy systems as well as controllable consumers and load flows to maximize demand in the electricity market.

Centrally, the Virtual Power Plant sees to it that the electricity market is used most efficiently by adjusting the energy production and consumption. This is achieved through effective management of the production and consumption data.

Energy markets

Energy markets

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Central control and operational management

The central control provides the plants with information and control commands. Here, the central control receives orders from the overall goal of the Virtual Power Plant and makes sure that the goals of the Virtual Power Plant are met. The central control is also responsible for the operational management of the Virtual Power Plant. The central control provides the plants with information and control commands. Here, the central control receives orders from the overall goal of the Virtual Power Plant and makes sure that the goals of the Virtual Power Plant are met.