

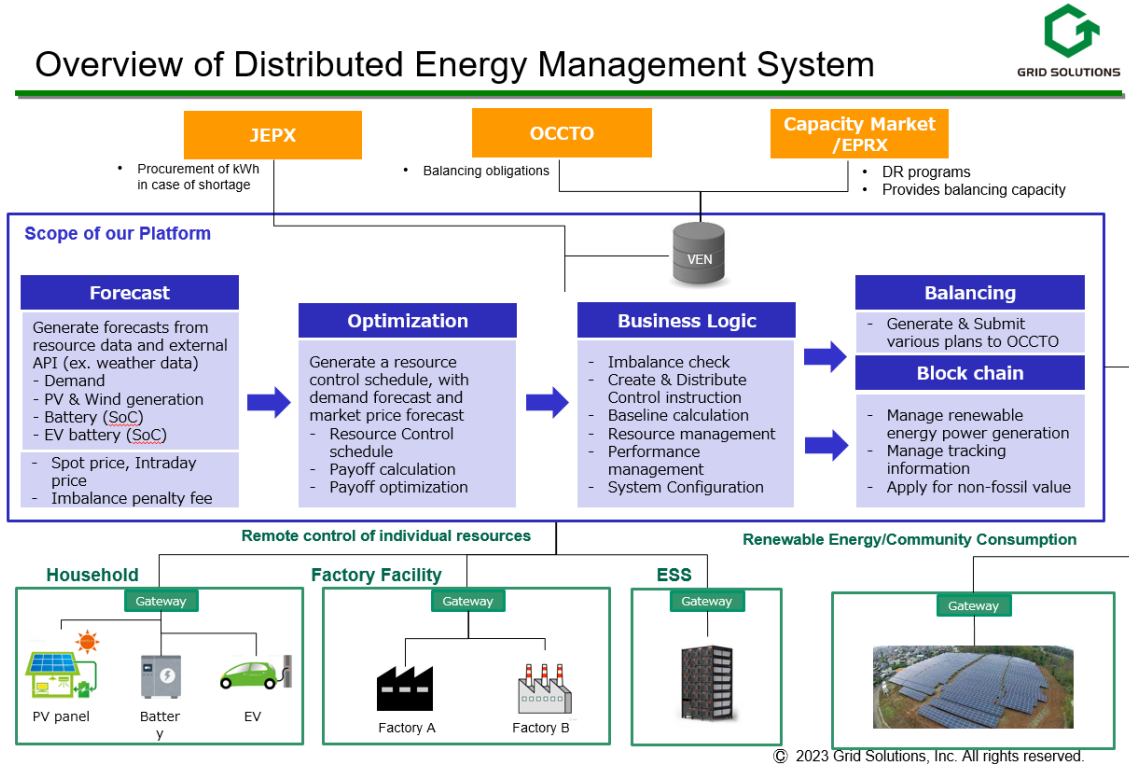
Grid Solutions has developed a DERMS that meets the challenges in the market accompanying the shift to Feed-in-Premium (FIP) for renewable energies.

[Challenges to be solved by our platform]

The impact of the transition from FIT to FIP can be summarized in the following two points. This platform will solve the challenges faced by renewable energy power producers and aggregators.

1. FIP renewable energy producers and aggregators now have balancing obligations and they are penalized for the imbalances generated.
2. FIP renewable energy producers' and aggregators' revenues now fluctuate, based on the price of the electricity market.

[Structure of this platform and main functions]



- Generates an optimal control plan for distributed resources with the aim of avoiding imbalance
 - ✧ Based on resource demand and power generation forecasts, our proprietary AI optimization engine generates resource control plans to avoid imbalances. At that time, the optimization engine can autonomously generate control instructions for resources without relying on control instructions from the grid.

- Generates a profit-maximizing power trading plan
 - ✧ Based on price forecasts in the electricity trading market, our optimization engine generates plans for power trading that maximize daily profits.

- Generates various forecast data required for optimization
 - ✧ Since the power generation and demand of distributed resources constantly fluctuates, it is necessary to improve the forecast accuracy. Our AI-based forecast engine forecasts the amount of power generation and demand for distributed resources through external APIs such as resource performance data and weather data, and it links the forecast data to the optimization engine.

- Generates forecasts for market prices and imbalance fee for optimization
 - ✧ In addition to JEPX Spot Market and Intraday Market price forecasts, our forecast engine also forecasts imbalance unit prices and links with our optimization engine.

- Submit various plans to OCCTO
 - ✧ The plans created by the optimization engine are linked to our Demand & Supply Balancing Engine, which seamlessly submits various plans to OCCTO.

- Automate the application of non-fossil value and the certification process
 - ✧ Under the FIP system, non-fossil value is separated from the value of electricity itself, and electricity and environmental value can be traded separately as a non-fossil certificate.
 - ✧ This service manages the power generation data of non-fossil power sources and seamlessly performs the process of applying to a certification body and receiving certification.

- Optimal control of distributed energy resources for DR commands
 - ✧ With OpenADR certified VTN and VEN, it also has general VPP aggregation functions based on DR commands, and optimally controls resources owned by resource aggregators.



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