FLEXIBLE INTERCONNECTIONS

MITSUBISHI ELECTRIC
MITSUBISHI ELECTRIC POWER PRODUCTS, INC.

PROBLEM

Distribution Utilities are experiencing rapid growth of distributed generation, energy storage and large loads. These current trends present challenges in maintaining grid security due to network capacity limitations that lead to excessive curtailment. This normally necessitates infrastructure upgrades to address these issues – often in the millions of dollars and potentially months or years to complete creating long interconnection queues for distributed generation developers and lengthy interconnection timelines for large load customers. This leads delays or cancellations in projects, missed revenue opportunities for project owners and utilities, high interconnection costs, excessive curtailment from constraints, and missed clean energy targets.

SOLUTION

Our Flexible Interconnections solution, powered by Strata Grid, provides a comprehensive answer to this challenge. By employing robust, fast-acting, and autonomous control techniques, our solution minimizes curtailment of generation and load and maximizes DER output and hosting capacity of existing infrastructure. Through real-time monitoring of the network and Distributed Energy Resource (DER), our corrective control methods implement DER set-point adjustments based on predefined thresholds and live grid conditions. This ensures the optimization of DER export or import, effectively managing local grid assets within their operational limits while enabling access to all new energy technologies. And unlike other OT solutions, Strata Grid is not dependent upon a network model thus greatly reducing the cost and time to deploy and delivering faster value to distribution utilities and their customers. This also allows for a scalable solution to meet relevant use cases and target specific areas of the network with capability to expand the solution as the utility needs grow.

OUTCOME

As a result, Distribution Utilities and Developers can confidently rely on our solution to deliver flexible interconnections, ensuring secure, reliable, and autonomous implementation. This not only enhances grid capacity and security but also provides much needed solutions in the interconnection process and enables more efficient attainment of clean energy goals while avoiding project delays, budget overruns, and customer aggravation. Utilities can have confidence that the DER interconnections will remain within pre-defined or dynamic network operating limits.

REAL-TIME MONITORING

AUTONOMOUS CONTROL

MINIMAL CURTAILMENT

MAXIMIZE DER OUTPUT