

Distributed Energy Resource Management System (DERMS)

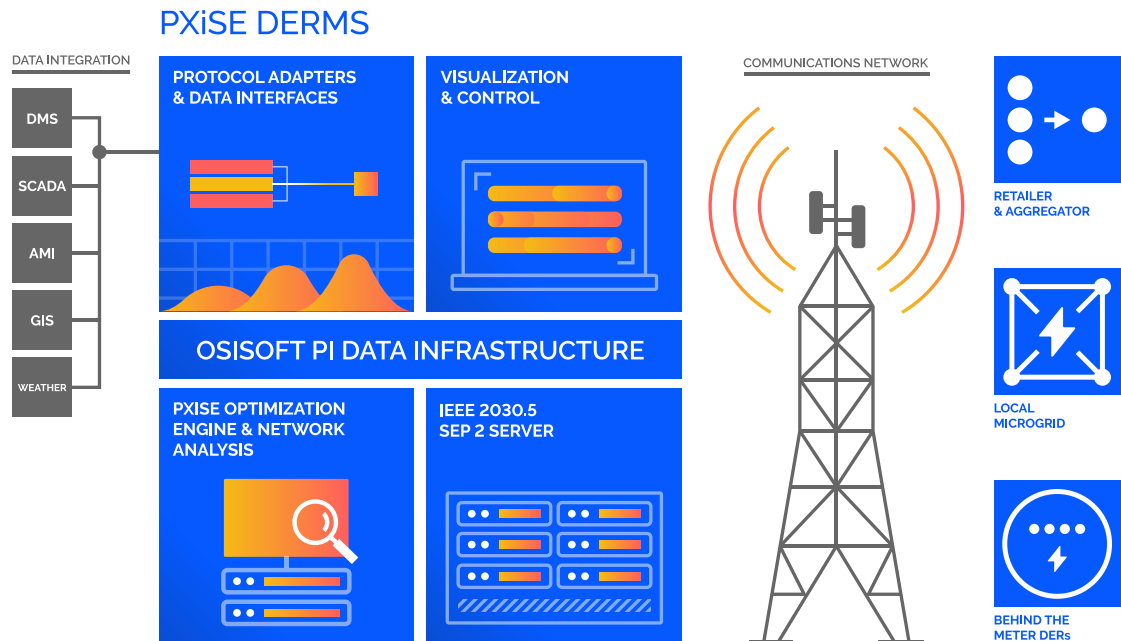
Balance simultaneous resource, load, demand, and network constraints while enabling a 100% renewable grid

The PXiSE DERMS helps utilities control the increase in renewable energy assets, batteries and electric vehicles. It coordinates both front-of-the-meter (FTM) and behind-the-meter (BTM) distributed energy resources (DERs) alongside traditional grid components on a single network through an integrated software platform that controls the dynamic two-way flow of energy.

Gain visibility and control

Take control of all DERs on your system. Remotely communicate with and control a combination of FTM and BTM DERs quickly and securely.

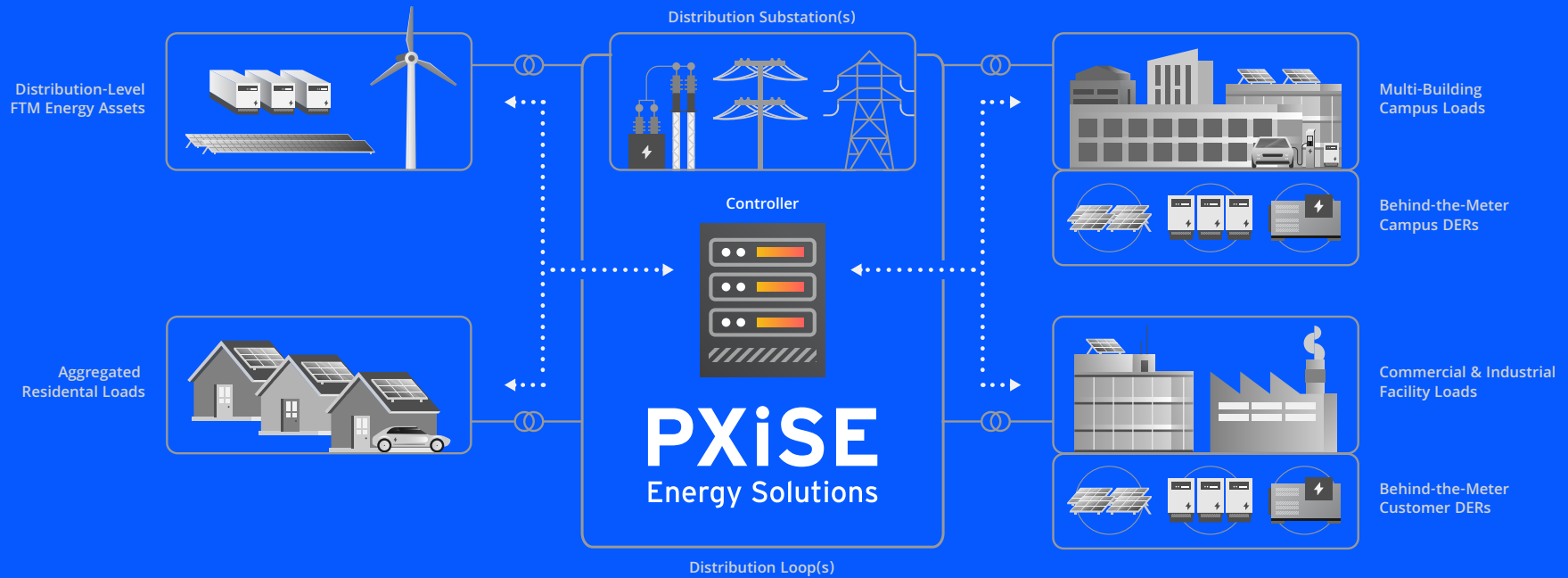
- Compensates for load changes by coordinating utility-owned assets alongside customer-owned assets across the grid
- Mitigates intermittency and coordination challenges by optimizing the energy mix of all DERs under its purview
- Facilitates direct control of DERs and can create a marketplace for DER participation
- Perceives the system as a whole—identifies opportunities to shape, shift and balance power across the whole system rather than solely at the point of generation or demand



Our software:

- Meets and exceeds security protocol standards for both physical and cyber threats and attacks
- Offers significantly reduced deployment time and cost through a pre-integrated IEEE 2030.5 DER communications server
- Meets compliance needs with role-based authentication (e.g., a grid administrator) and multi-factor authorization
- Interfaces with existing operating technologies (SCADA, weather forecasting services, DMS and OMS) to provide network topology, configuration status, load DER status, and real-time system operations data in a single, centralized dashboard

PXiSE Energy Solutions



Increase hosting capacity

Expand local hosting capacity and scale to control tens of thousands of DERs, microgrids, and fleets of storage and renewable assets in one system. Ensure full value to your customers without costly infrastructure upgrades or increased electricity costs.

- Highly customizable business rules related to curtailments.

Scalable, modular platform

Start small with highly impacted communities such as remote or rural towns, constrained substations, or areas with rapidly growing DER and EV adoption.

- Easily re-optimized as tariffs, market conditions, and the asset mix change
- Promotes longevity as it is built to industry standards rather than a customized solution

Patented, reliable automation

- Patented AI clustering technology creates demand forecasts that continuously analyze historical demand and weather data to derive an operating plan for anticipated demand
- Recalibrates the operating plan through autonomous optimizations that maximize renewable generation, cost savings, and system efficiency
- Network aware optimization considers voltage and capacity limits, topology, and energy resource characteristics to ensure the system converges to an optimal solution rather than merely the fastest or easiest to initialize

Zero inertia operation

PXiSE has the only DERMS with zero inertia operating capabilities through its innovative ability to safely and effectively manage generation ramp up/down and generator on/off while simultaneously coordinating and dispatching renewables and storage.

- Offers simultaneous rather than sequential control of multiple interdependent grid variables (energy, voltage, network constraints) through a complex algorithm
- Leverages the rapid response of batteries to mitigate renewables' intermittency, rather than relying on slow-moving generators

