

INNOVATIVE SOLUTIONS FOR THE POWER INDUSTRY

Distributed Energy Resource Management Systems (DERMS)

Planning, operation, and maintenance is significantly affected by increased distributed energy resource (DER) penetration on the distribution system.

DERMS is an operational technology that allows DERs to be aggregated, visible to the system operator, managed, and integrated with other advanced applications.

Implementation of DERMS can influence the entire distribution business from the DER interconnection process to operational reporting and customer engagement to enable standard applications like grid services management and system reliability improvement as well as enable advanced applications such as virtual power plants and emerging technology integration (i.e., aggregated demand response and DERs, electric-vehicle charging stations, microgrids, and building energy management systems).

Key Service Offerings

DERMS Roadmap and Strategy:

- Adoption of DER technology and use-cases
- Migration from legacy systems and reference architecture
- Application integration of DERMS and ADMS
- Gap analysis and initiative definition.

Design and Analysis:

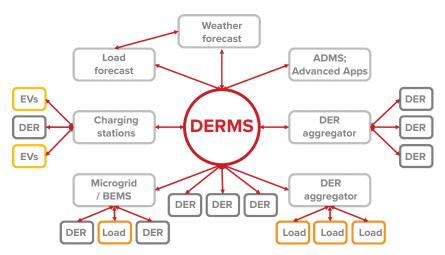
- DER valuation and hosting capacity analysis
- DER interconnection and DERMS integration
- Enterprise and market integration
- Custom field controllers for DERs.

Owner's Engineer:

- Request for Proposal (RFP) support and solution evaluation
- DERMS deployment and testing
- DERMS pilot project design, engineering, evaluation, and analysis.

Operation and Maintenance:

- Data curation, reporting and visualization
- Measurement and verification of system's performance
- Historical data quality assessment and data analysis
- DERMS configuration optimization.

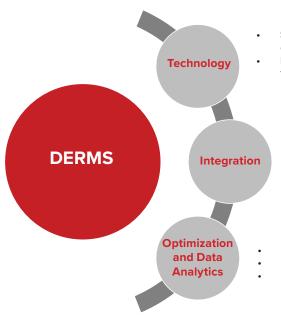


PICTURED: DERMS integration

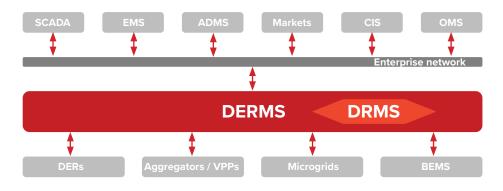


Why Quanta Technology's solution?

The DERMS solution resides at the core of our grid modernization strategy. Quanta Technology has spent over a decade helping utilities navigate all avenues of distribution planning and operation business, especially the avenues influenced by the advent of DERs. We have a team of industry experts and thought leaders equipped to help plan, justify, select, and integrate DERMS solutions to be scalable and expandable as integration of DER continues and technology evolves.



- **Strategic guidance** to utility customers on interaction between legacy and emerging applications
- **Partner with utilities** to ensure alignment of technology, people, and processes for grid modernization
 - Integration of new operational systems
 - · Pre-transition to production testing with integration and real-time simulation testing
 - Testing strategy adapted to utility's requirements
- **DERMS owner support** with DER-scaling production systems evolution
 - Operational data reviews and planning studies to update configurations
- Collaborative development of DERMS' operation and maintenance strategy



Key:

- CIS: Customer Information System
- OMS: Outage Management System
- VPP: Virtual Power Plant
- DER: Distributed Energy Resource
- ADMS: Adv. Distribution Management System
- DERMS: DER Management System
- DRMS: Demand Response Management System
- · BEMS: Building Energy Management System
- SCADA: Supervisory Control and Data Acquisition

PICTURED: DERMS integration

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