

Oracle Utilities Grid DERMS

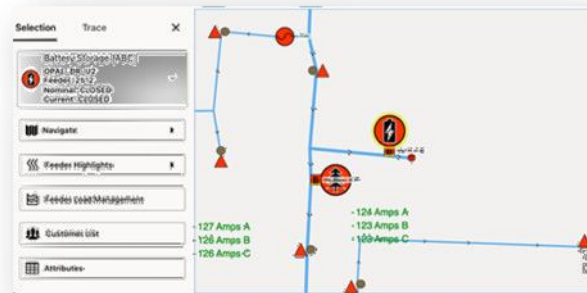
A comprehensive solution for real-time intelligence and grid-scale impact

Oracle Grid DERMS empowers utilities to seamlessly integrate and optimize distributed energy resources (DERs)—including both utility-owned and customer-owned assets. Designed for real-time control and day-ahead scheduling, it supports optimization and management of diverse DER technologies such as solar PV, wind turbines, and battery energy storage systems (BESS). With Oracle Grid DERMS, utilities can address grid constraints, enhance reliability, and unlock market potential through intelligent optimization and control.

Enable full DER awareness

Oracle Grid DERMS shares a common network model with Oracle DMS and OMS, enabling full DER awareness across all DMS operational applications. This tight integration ensures real-time grid constraint management and automated enforcement of IEEE 1547 rules, including disconnection logic during feeder de-energization and safe reconnection during service restoration.

This architecture supports advanced DMS applications—such as VVO, FLISR, and Suggested Switching—and ensures DERs are not only visible but actively coordinated and utilized within broader grid operations.



Enhance operational insight

The DERMS dashboard provides a unified view of all DERs (front-of/behind-the-meter) on the system. Operators can view DER location, capacity, generation output, forecasts, and availability in real-time. Additionally, the dashboard reveals net and gross load by estimating and forecasting DER output using meteorological and historical data, allowing operators to simulate scenarios in study mode to understand DER impact and support planning decisions. This visualization capability improves DER visibility across the distribution network and enables proactive operational responses and coordination with transmission system operation for contingency planning and analysis.



Key capabilities:

- Seamless integration with Oracle ADMS
- Detailed technical modeling of different DER technologies for power flow analysis
- Automated IEEE 1547 enforcement
- DER-aware FLISR, VVO, and OPF
- Forecast DER's output for real-time and study mode
- DER cost optimization within operational constraints
- Day-ahead DER scheduling
- Economic Dispatch

Enable flexible interconnection of DERs

Oracle Grid DERMS enables flexible interconnection of DERs through Network Capacity Allocation (NCA). The system calculates operating envelopes that help utilities define safe and dynamic hosting limits. These envelopes support the generation of day-ahead schedules and allows flexibility service providers to participate in wholesale markets without causing network congestion or voltage violations.

Define operational and optimization objectives

Oracle Grid DERMS empowers users to define the operational objective of each DER—whether for Volt-VAR Optimization (VVO), Optimal Power Flow (OPF), or other DERMS use cases. Users can configure an automated priority order for these objectives, allowing DERs to be seamlessly reassigned when not in use by a higher-priority function. This flexible DER management applies to both the real and reactive power output.

Why Choose Oracle Utilities Grid DERMS?

- **Comprehensive Visibility of DERs:** Gain a single-pane-of-glass view into DER operations and market participation.
- **Integrated Edge DERMS capability:** Benefit from a fully modular solution that can seamlessly integrate both Oracle Edge DERMS with Grid DERMS to provide end-end coverage for all your grid management needs.
- **Enhanced Grid Reliability:** Optimize grid stability through intelligent aggregation and dispatch of DERs.
- **Future-Ready Technology:** Designed to support the evolving needs of modern grids with DERs and VPPs.
- **Proven Expertise:** Powered by Oracle's secure, scalable, and interoperable technology stack—enhanced with AI for predictive insights and operational intelligence.

Key Use Cases:

- Prevent overloading and backfeed of transformers and feeders during high generation event
- Safely handle additional generation resources during periods of low generation
- Calculate DOE to enable flexible interconnection and market participation

Related Solutions:

- Oracle Utilities Customer Program Management Cloud Service (CPMCS)
- Oracle Utilities Live Energy Connect
- Oracle Utilities Network Management System
- Oracle Utilities Edge DERMS
- Oracle Utilities Data Intelligence

Transform your grid today with Oracle Utilities Grid DERMS – the future of digital grid management starts here.

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