



Oracle Grid Operations Insights

Modernize Grid Management with Data-Driven Intelligence

As utilities face rising complexity from EV adoption, DERs, and renewables, traditional tools struggle to keep up—resulting in forecasting errors, transformer overloads, and device mismaps that drive up costs and risks. To stay ahead, utilities need smarter, AI-driven tools that deliver real-time, actionable grid insights.

What is Oracle Grid Operations Insights?

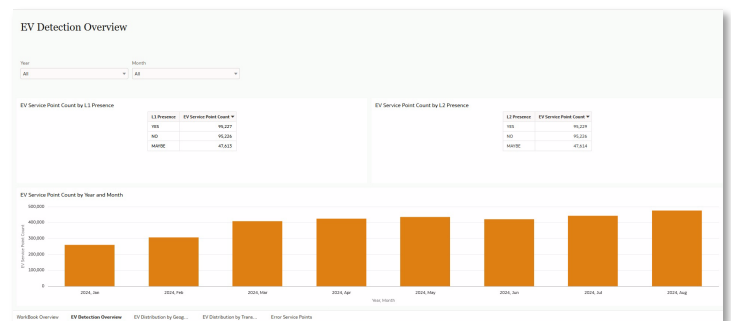
Grid Operations Insights empowers grid operators with prebuilt analytics and machine learning—delivered on the Oracle Energy and Water Data Intelligence (EWDI) platform. The solution connects directly with **Oracle Meter Data Management (MDM)** systems, analyzes high-volume grid data, and provides utilities with actionable insights through curated dashboards, geographic visualizations, and predictive models.

With Grid Operations Insights, utilities can detect EV adoption patterns, resolve asset mismaps, monitor transformer loads, and plan grid upgrades with precision. These insights help reduce risk, improve reliability, and extend asset lifespans—enabling smarter decisions and faster action.

Key Capabilities

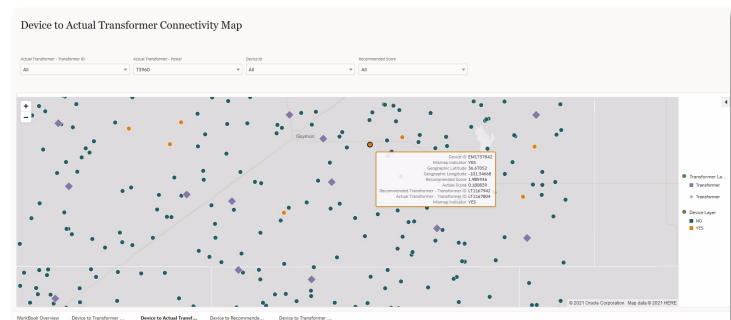
EV Detection and Load Mapping

Grid Operations Insights uses advanced machine learning to identify when and where electric vehicles are charging, even when traditional meters can't distinguish EV load from other usage, and map charging activity to grid assets. This allows utilities to forecast demand more accurately, implement targeted demand response, and engage EV owners with tailored programs.



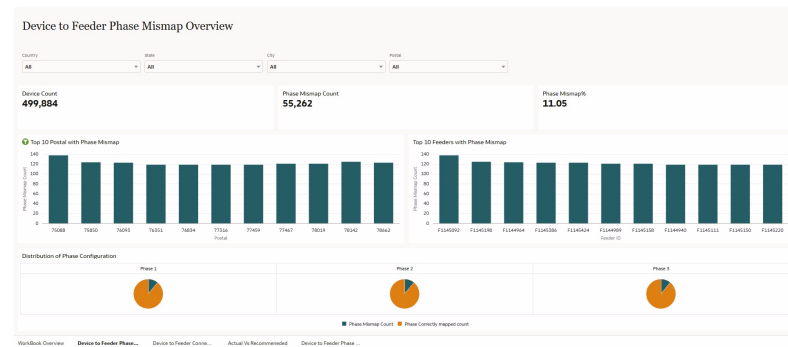
Device-to-Transformer Mismatch Detection

The solution detects devices that are incorrectly mapped to transformers by analyzing voltage and distance patterns. Correcting these mismaps improves data accuracy, ensures proper load distribution, and supports faster, more reliable outage response.



Device-to-Feeder Phase Mismatch Detection

By identifying mismatches between devices and feeder phases, the solution helps utilities balance power distribution across the grid. This reduces energy losses, avoids infrastructure stress, and enhances overall grid efficiency.



Distribution Transformer Load Monitoring

Grid Operations Insights continuously monitors transformer load levels to flag overload risks before they cause failures. Utilities can use this insight to prioritize maintenance, reduce outages, and extend the lifespan of critical assets.

Why Oracle Grid Operations Insights?

Designed to work out of the box with Oracle's Meter Data Management (MDM) systems, Oracle Grid Operations Insights enables utilities to quickly surface and act on critical grid issues like EV load spikes, asset mismaps, and transformer overloads—delivering value from day one. Built on the Oracle Energy and Water Data Intelligence (EWDI) platform, it offers seamless data integration and immediate access to Oracle's advanced AI and analytics services. Utilities can begin generating actionable insights in weeks—not months—and easily scale into more advanced analytics and machine learning as their needs evolve.

Get Started

Take the first step toward a smarter grid today! Contact your Oracle sales representative or visit <https://engage.oracle.com/energyandwaterdataintelligence> for more information.

Key Use Cases:

- **Validate Network Models:** Identify mismaps across devices, transformers, and feeders. Drill into geographic and postal code data to pinpoint areas for correction.
- **Plan for EV-Driven Demand:** Map EV energy usage to network models, understand congestion risks, and prioritize grid reinforcements to meet future demand.
- **Monitor Critical Grid Assets:** Use insights to track transformer health, detect overloads, and prevent failures before they occur.
- **Enable Proactive Maintenance:** Prioritize transformer replacements, manage grid assets effectively, and avoid costly outages.

Customer Value:

- Reduce grid inefficiencies and operational costs.
- Ensure accurate and reliable energy distribution.
- Enable data-driven grid planning and investment.
- Deliver consistent, high-quality service to consumers.

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