DER Analytics

Analyzing Distributed Energy Resources for Smarter Grid Management

Gain a clear view of DER assets across your territory, assess their impact on your grid, and leverage data-driven strategies to enhance resilience, reduce emissions, and lower peak demand.

The Importance of Distributed Energy Resources

In today's evolving energy landscape, it is no longer optional for utilities to understand the Distributed Energy Resources (DER) in their territory; it's essential for a sustainable and resilient future.

By strategically integrating DERs, utilities can improve resilience for customers, enable environmentally sustainable resources and contain peak demand costs. While DERs enhance grid reliability, they also provide crucial backup power during outages and empowering customers to become active participants in the energy ecosystem. Ultimately, proactive DER integration strengthens customer engagement, and improves utility performance, both operationally and financially, paving the way for a smarter, more efficient, and sustainable energy infrastructure.

Track Capacity

Aggregate total production capacity.

Capacity Factor

Track CF and identify significant reduction.

Quantify Energy

Track total DER production.

Optimize Marketing

Target communications regarding DER.

Identify DER

Find locations with previously unknown DER.

Quantify Growth

Assess predicted growth in DER adoption.

Module Functions & Capabilities

The DER Analytics module in SmartWorks Compass is designed to provide utilities with comprehensive visibility into their Distributed Energy Resources (DER) assets – both customer owned and utility-owned. This module allows utilities to track the location, size, and capacity of DER assets, such as solar panels and storage systems, and monitor the energy they produce or store. It can also track virtual resources, such as direct load control or demand side management strategies. It can synchronize with a System of Record (SOR) for DER assets or act as an SOR itself, allowing users to enter or import resource details. Capacity and production data can be aggregated across various dimensions like type, region, feeder, or substation. The module also offers the ability to calculate and store missing data, for instance where production is not metered, or total premise load is not stored.

SmartWorks

Make the Complex Simple

The solution includes detailed dashboards that can be configured and modified by the user, such as maps showing solar installations, graphs of total solar production, and predicted growth in adoption. DER production is displayed and quantified as a portion of total load, and also in the form of contribution at time of peak demand. Additionally, the module can benchmark utility data against industry metrics. This functionality enables utilities to make informed decisions about DER strategies, distribution planning, and customer communications, ultimately enhancing grid resilience, reducing greenhouse gas emissions, and managing peak demand.

The Benefits of Our Module

The SmartWorks DER Analytics solution empowers you to make informed decisions about DER strategies, distribution planning, and customer communications. With it, you can understand the number and types of solar, storage, and other DER assets, identify solar-producing locations even without existing records, and estimate or calculate solar production in cases where it is not metered. Additionally, you can understand the energy produced by DERs, and visualize variations over time, seasons, and weather conditions. With better information, you can target specific communications to customers that have adopted DERs and those likely to adopt in the future, then assess the impact of DER on system loads and financial performance. With these capabilities, you can improve your own operations and meet the ever-increasing expectations of your customers.

SmartWorks Compass Overview

Feature	Description
Optimized Utility Operations:	Uses analytics, AI, and automation to streamline operations.
Scalability:	Adapts to any utility size and future growth.
Rules Engine & Workflows:	Automates custom workflows to enhance operational efficiency.
Access & Data Archive:	Secure, easily accessible data for long-term trend analysis and forecasting.
AI Guided Data Cleansing:	Automates data review, ensuring accuracy and improving data quality.
Insights & Automation:	Provides real-time insights and automates actions to optimize utility operations.
System Integrations:	Integrates seamlessly with a variety of utility systems such as AMI, CIS, GIS, and more.

Explore Key Modules to Enhance SmartWorks Compass		
• MeterSense (MDMS)	• AI-Baseline & Forecast	• Transformer Loading Analysis
• KPI Dashboard	• Rate & Revenue Analysis	• Voltage Analysis
• Instant Insight	• Targeted Messaging	• Electric Vehicle Analytics

Supported Browsers
• SmartWorks Compass supports all major modern browsers, including Chrome, Edge, Firefox, and Safari.

Optimize the impact of the Distributed Energy Resources in your area. Reach out today to discover how DER Analytics can help you boost your performance and grid resilience.

FOR MORE INFORMATION
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