



Service expertise & analytics optimize power system performance



EcoStruxure™ Power Advisor

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Life Is On



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Discover Power Advisor

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Visibility brings
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Evolving technology requires new expertise

The modern electrical grid requires a workforce with a wide array of skills. Yet today, industries are challenged with a loss of expertise and dwindling resources. Retiring staff and tighter operating budgets are leaving a significant knowledge gap in organizations, particularly in the areas of electrical distribution and power quality.

At the same time, electrical infrastructure continues to evolve with business needs, modernization and expansions; your power system needs to keep up. If not properly maintained, it can lose data integrity or overlook power quality issues. The risk is that, if left unmonitored, these issues might go unnoticed until it's too late. The results could be disastrous: unplanned downtime, damaged equipment, reactive operational spend – even injury to staff or visitors.

We can help. EcoStruxure Power Advisor identifies data quality issues and recommends fixes so that you can rely on your system for informed decision making. Our dedicated experts use advanced analytic tools to help you solve issues before they become problems that impact your bottom line.

Power Advisor optimizes network reliability and increases the operational efficiency of service teams.



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Maximize your system investment by making your data work for you

Electrical network reliability, efficiency and compliance throughout your facility's life cycle

Power Advisor is a unique, affordable and fast-to-deploy service that leverages your power system data. Fueled by analytics and expert engineers, it finds and prioritizes electrical network and data quality issues anywhere in your system, recommending ways to correct them. These automated, expert recommendations shift your team from non-productive hours to high value work via two core categories of analytics:

Data Quality

Insights and recommendations that establish a trustworthy data foundation and facilitate ongoing electrical network health

Electrical Network

Detailed system and trend summaries that identify weaknesses and propose mitigation solutions to prevent a detrimental impact on your business

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Actionable insights that improve your system

Understand, identify and correct issues to optimize electrical network performance

Some examples of data quality and electrical network analytics include:

Data Quality

- Zero values
- Energy balance violations
- Over and under reporting
- Mismatched logging intervals
- Negative energy values

Electrical Network

- Power factor
- Excessive voltage and current harmonics
- Over and under voltage
- Voltage imbalance
- Transformer overcapacity

1%

of data from sensors is currently used for decision-making

\$300B+

worldwide economic costs due to poor or unreliable power

80%

of power disturbances are generated from inside facilities

Check out the [Active Energy infographic!](#)

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Executive Summary

Evidence snapshot

Executive Summary

Data Quality Report

Executive Summary

Report Summary

17%

System Affected
This number indicates the total percentage of your system load affected by one or more detected data quality issues.

Data Health Check



Based on Power Advisor's advanced analytics technology, we have detected issues within your Power Monitoring system that could cause inaccurate data, unreliable data or both to be presented to you and saved in the system. Making decisions based on this data is not recommended. Please refer to the detailed report for a deeper understanding of the possible causes and recommended actions for each of these data quality issues. We recommend contacting your Schneider Electric Technical Support Engineer for more details on how to improve the data quality of your Power Monitoring system.

Icon	Message	Action
	No Power or Energy Data in Query Period (1/1/2020)	Device(s) missing data. Unable to perform some diagnostic on device(s).
	All Zero Values (1/1/2020)	Device(s) logged consistently zero values over query period.
	Energy Balance Violation (1/1/2020)	Sum of problem device(s) energy consumption more than parent's consumption.
	Negative values Present (1/1/2020)	Device(s) logged a mix of negative and positive values in query period.
	Unchanging Value (1/1/2020)	Logged values did not change over query period.
	Water Underreporting or Overreporting Consumption (1/1/2020)	Device(s) suspected of either under or over-reporting energy consumption.
	Consistently Negative Values (1/1/2020)	Device(s) logged exclusively negative values in query period.
	Device Not in Hierarchy (1/1/2020)	Device(s) not in known hierarchy. Unable to perform some diagnostic on these devices, only parent in hierarchy.
	Water Detection Threshold Too High (1/1/2020)	Device(s) unable to detect low enough readings for the application.

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Harnessing data to optimize power system performance

Targeted insights to get the most from your resources

Executive Summary

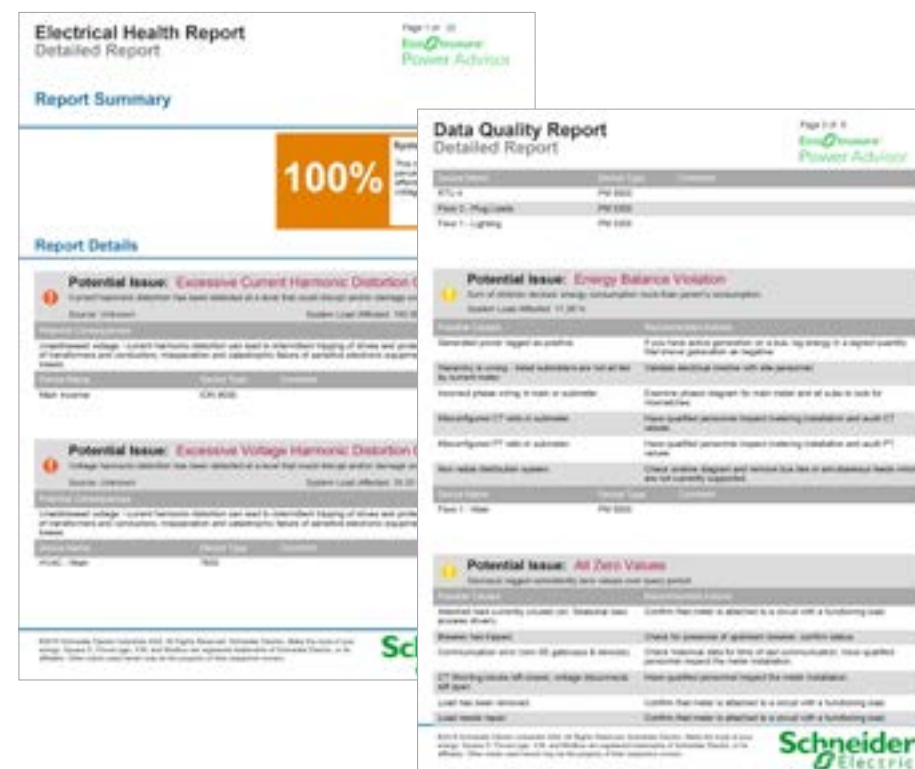
Issue details

Evidence snapshot

Performance trending

Issue details

In-depth analyses highlight abnormalities and chronic issues that have the potential to affect site operations. Service experts use these insights to coordinate with customers, ensuring maintenance activities onsite are highly prioritized, productive and efficient. Each individual issue is identified by system data readings that prescribe specific recommended actions, complete with information on possible causes and devices affected.



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Harnessing data to optimize power system performance

Reduce time spent on troubleshooting and focus on solutions

Executive Summary

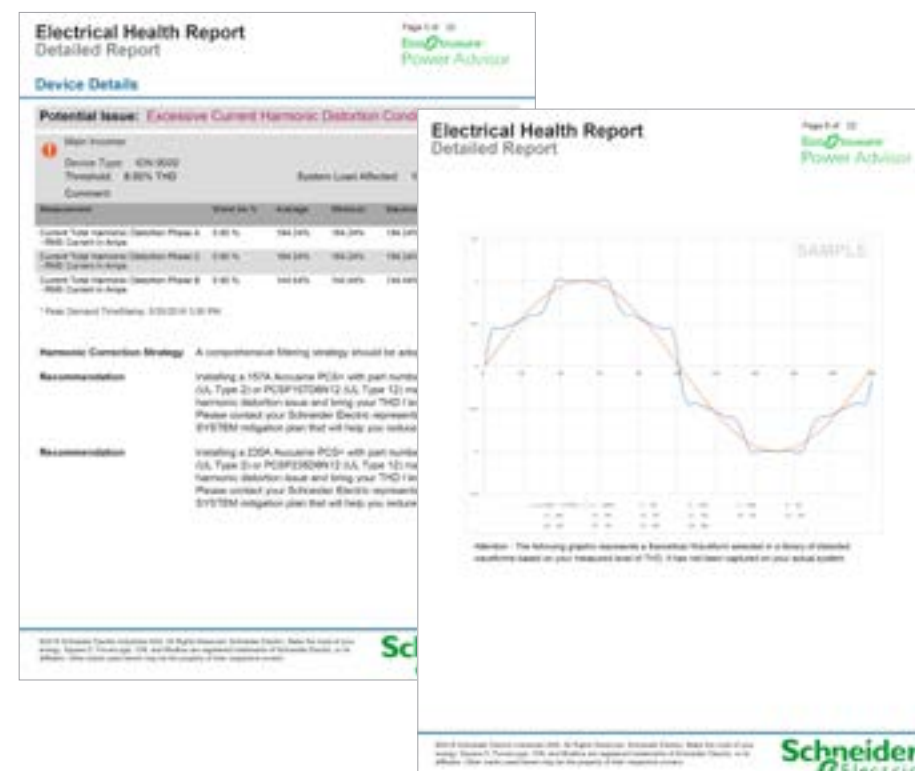
Issue details

Evidence snapshot

Performance trending

Evidence snapshot

One example of a chronic issue is excessive harmonics. Power Advisor detects excessive voltage and current harmonics and prescribes a correction strategy, complete with two country-specific solution recommendations that return operations to either normal or optimized parameters. Additionally, a theoretical waveform is generated to more easily visualize the distortion found.



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Harnessing data to optimize power system performance

Reduce maintenance overspend by tracking progress with clear benchmarks

Executive Summary

Issue details

Evidence snapshot

Performance trending

Performance trending

Power Advisor also monitors ongoing data quality and electrical network issues to identify trends and track improvements over time. Comparison graphics map issues against each other in a high-level overview for stakeholders to visualize how electrical network health is improving as well as the number of power quality issues by type to confirm their reduced risk to site operations.



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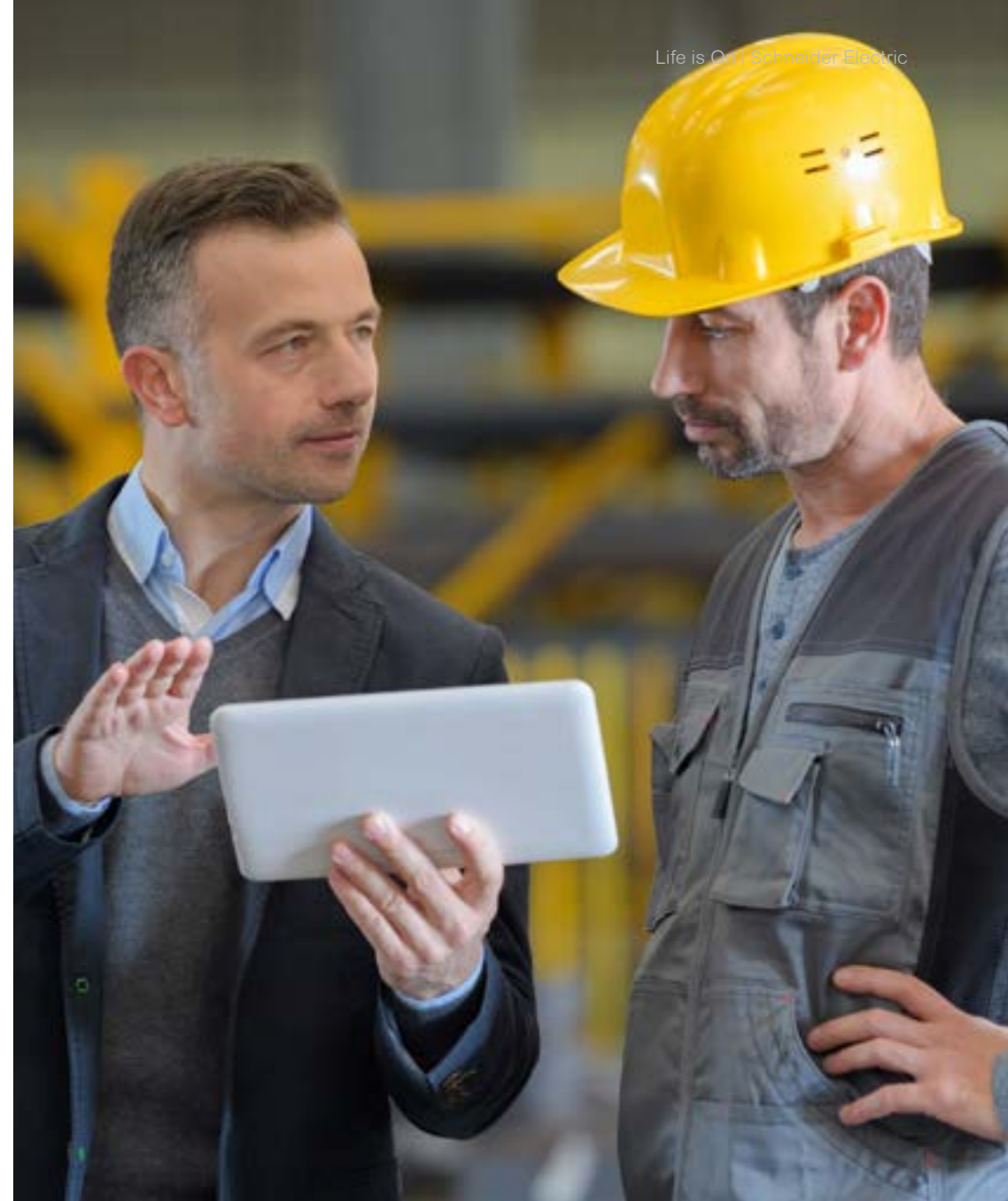


Power Advisor digital service plans

Power Advisor digital service plans are designed to pair targeted maintenance with expert support and cutting-edge analytics for measurable improvement of your power system performance. Our plans are offered at different levels to meet your business needs and can be customized with optional services.

Data-driven decisions enable you to maximize your system investment. In fact, IoT-enabled condition-based services can cut unplanned outages in half and reduce maintenance costs by up to 25%, extending the life of your power-related assets.

[Contact us](#) for more information about how to move to efficient, proactive maintenance with Power Advisor.



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How Power Advisor works

Power Advisor analytics are run multiple times per year, dynamically adjusting to changes in your system to ensure optimal system performance

- 1 Data collection**
Power system data is collected and uploaded to our secure cloud.
- 2 Single-line diagram** (recommended for extended analytics)
A digital representation of your power system hierarchy can be developed. While requiring an initial setup, only minor adjustments are needed as your system evolves.
- 3 Data quality and electric network analyses**
Our service experts perform analyses based on your power system and facility configuration.
- 4 Expert consultation**
Backed by patented analytics, our service experts consult with you to prioritize site issues and review findings.
- 5 Targeted corrective services**
Based on the results of your expert consultation, prioritized site issues are assessed for mitigation and optimization solutions.
- 6 Follow-up**
Corrective actions are reviewed to ensure issues are properly resolved with additional guidance provided as needed.



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Future-ready power systems

EcoStruxure Power delivers more safe, reliable and efficient power for peace of mind and significant financial benefits. IoT-enabled future-proof solutions are tailored to meet your specific needs and simply work. Our digitized LV and MV solutions are powered by innovation at every level enabling enhanced connectivity, real-time operations and smart analytics.

IoT-connected solutions are ready to improve every aspect of your electrical distribution system. Take total control with real-time data and smart analytics for predictive maintenance.

[Find out more!](#)



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Learn more about EcoStruxure Power



Whitepaper: Power management for a changing world



Contact us to start your journey



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