

EcoStruxure™ Power Advisor

IT & Data Security Guide

7EN02-0496-02

08/2025

Public



Legal information

The Schneider Electric brand and any registered trademarks of Schneider Electric Industries SAS referred to in this guide are the sole property of Schneider Electric SA and its subsidiaries. They may not be used for any purpose without the owner's permission, given in writing. This guide and its content are protected, within the meaning of the French intellectual property code (Code de la propriété intellectuelle français, referred to hereafter as "the Code"), under the laws of copyright covering texts, drawings and models, as well as by trademark law. You agree not to reproduce, other than for your own personal, noncommercial use as defined in the Code, all or part of this guide on any medium whatsoever without Schneider Electric's permission, given in writing. You also agree not to establish any hypertext links to this guide or its content. Schneider Electric does not grant any right or license for the personal and noncommercial use of the guide or its content, except for a non-exclusive license to consult it on an "as is" basis, at your own risk. All other rights are reserved.

Electrical equipment should be installed, operated, serviced and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

As standards, specifications and designs change from time to time, please ask for confirmation of the information given in this publication.

Safety information

Important Information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of either symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

Please Note

Electrical equipment should be installed, operated, serviced and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Safety precautions

During installation or use of this software, pay attention to all safety messages that occur in the software and that are included in the documentation. The following safety messages apply to this software in its entirety.

WARNING

UNINTENDED EQUIPMENT OPERATION

- Do not use the software or devices for critical control or protection applications where human or equipment safety relies on the operation of the control action.
- Do not use the software to control time-critical functions.
- Do not use the software to control remote equipment without proper access control and status feedback.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

WARNING

INACCURATE DATA RESULTS

- Do not incorrectly configure the software or the devices.
- Do not base your maintenance or service actions solely on messages and information displayed by the software.
- Do not rely solely on software messages and reports to determine if the system is functioning correctly or meeting all applicable standards and requirements.
- Consider the implications of unanticipated transmission delays or failures of communication links.

Failure to follow these instructions can result in death, serious injury, equipment damage, or permanent loss of data.

WARNING

POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY

Use cybersecurity best practices to help prevent unauthorized access to the software.

Failure to follow these instructions can result in death, serious injury, equipment damage, or permanent loss of data.

Work with facility IT System Administrators to ensure that the system adheres to the site-specific cybersecurity policies.

Contents

Safety information	3
Safety precautions	4
Introduction	6
About this guide	6
About EcoStruxure™ Power Advisor	6
About data confidentiality and security	7
Design	8
Secure development lifecycle	8
System architecture	9
Data collection and transmission	10
Cloud-based software	10
Network Configuration	11
PME with cloud connection	11
Firewall considerations	12
Operation	13
Operational monitoring and incident response	13
User authentication and authorization	13
Frequently Asked Questions	14

Introduction

This section includes helpful information on this guide's intended use, how Power Advisor fits into a power management system, and data confidentiality and security commitments honored by Schneider Electric.

This chapter contains the following topics:

Topic	Description
About this guide	What can you learn from this guide?
About Power Advisor	A definition of Power Advisor and where it resides in a power management system.
About data confidentiality and security	An overview of the type of data collected by Power Advisor and the Schneider Electric commitment to data security.

About this guide

This guide:

- Is classified for **Public** use and is accessible on se.com.
- Details how EcoStruxure Power Advisor (PA) manages the security and privacy of collected data from the Energy and Power Monitoring System (EPMS), made up of Power Monitoring Expert (PME) or EcoStruxure Power Operation (EPO).
- Provides the essential information for configuring the cloud connectivity between PA and the edge control software Power Monitoring Expert (PME), the on-premise customer EPMS.
- Outlines basic IT requirements for enabling Connected Services and addresses common user queries regarding data extraction options for analysis using Power Advisor, covering manual and automatic extraction methods.
- Documents PA and Schneider Electric security and data privacy controls, thereby addressing any clarifications IT departments may have.

This guide is written for:

- IT departments who need to understand how to incorporate Power Advisor into their IT environments.
- Engineers and technicians who need to deploy Power Advisor for a customer facility.

About EcoStruxure™ Power Advisor

Power Advisor is a cloud-based analytics platform that identifies and prioritizes electrical network and data quality issues.

Power Advisor connects to the edge software, either PME or EPO to collect and analyze measurement data gathered from connected devices in the field. By optimizing the electrical system, Power Advisor also provides users with expert recommendations and advanced analytics to help maximize operational efficiency while minimizing risk.

About data confidentiality and security

Power Advisor collects operational energy system data and a limited, defined set of Personally Identifiable Information (PII). PII information includes the end-user site's physical business address that is manually added at the time of provisioning and not sent from the site.

Sensitive data

#	Category	Data Type	Reason	Related To
1	Personal information	Company site address	Helps to customize settings adapted to geographical location	End customer

Non-sensitive data

#	Category	Data Type	Related To
1	Asset data	Asset name	End customer electrical assets
		Asset type	
		Manufacturer	
		Model number	
2	Operational data	Connected number of devices	End customer network
		Operational electrical measurement	
		Telemetry measurements	

Schneider Electric is committed to protecting the confidentiality and security of customer data. Power Advisor complies with the Schneider Electric global policies and procedures on cybersecurity and data protection.

For more information on Schneider Electric's cybersecurity and data protection policies and procedures, see the [Frequently Asked Questions](#) section in this guide.

Design

This section includes helpful information on the Schneider Electric secure development lifecycle, Power Advisor system architecture, data collection and transmission, and cloud-based software.

This chapter contains the following topics:

Topic	Description
Secure development lifecycle	Learn about the secure development lifecycle practices built in to Power Advisor.
System architecture	A high-level conceptual diagram of Power Advisor.
Data collection and transmission	Power Advisor data collection and transmission.
Cloud-based software	Power Advisor and Microsoft cloud services security on the Microsoft Trust Portal .

Secure development lifecycle

Schneider Electric employs Secure Development Lifecycle practices for building Power Advisor. These practices are based on the ISO/IEC 27000-series standards for information security, meaning we are designing security into Power Advisor right from the beginning and not as an afterthought.

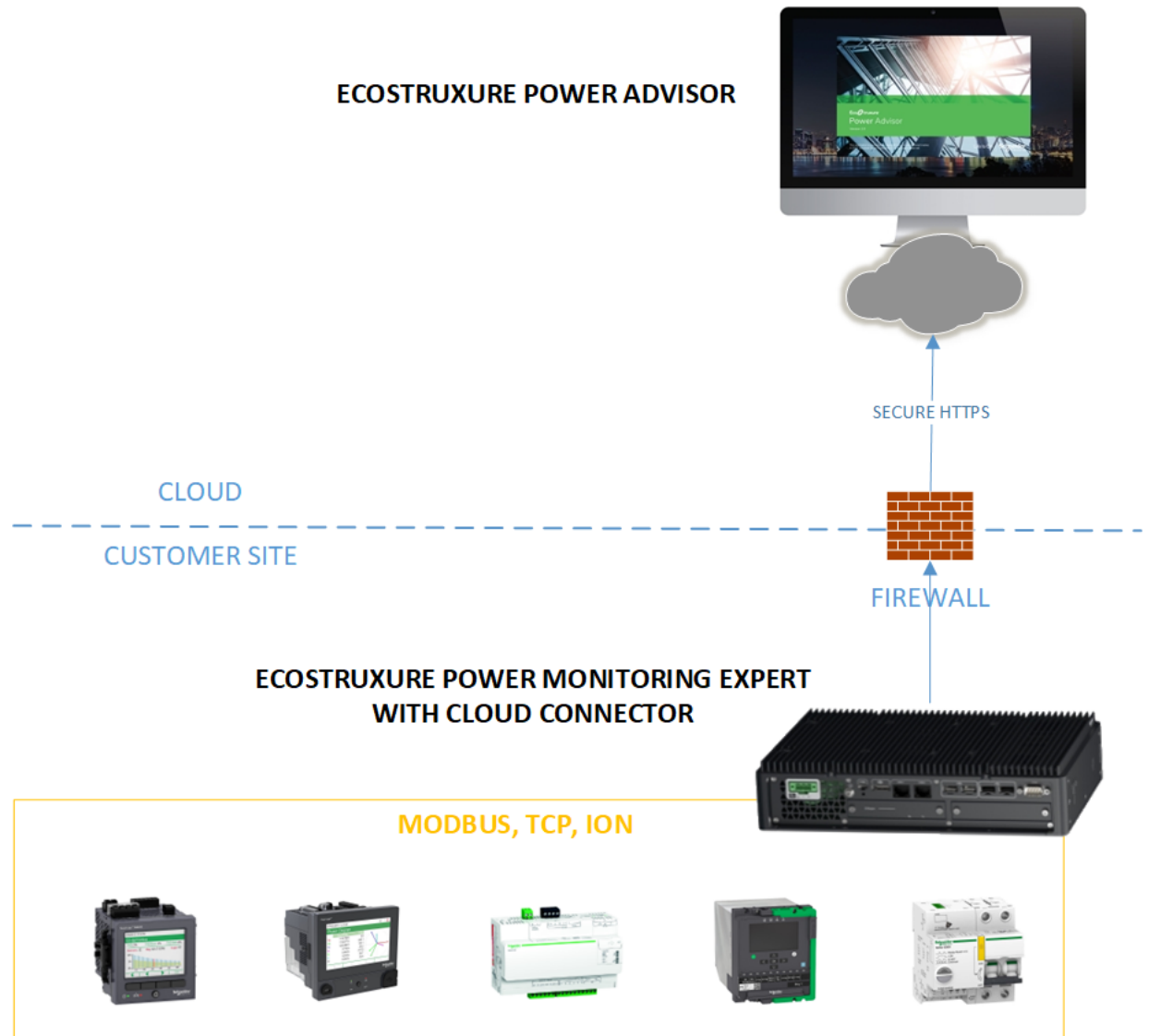
The following are examples of the Secure Development Lifecycle practices used at Schneider Electric:

- Periodic authorized simulated cyberattacks (penetration tests) on Power Advisor, performed by Schneider Electric cybersecurity specialists to evaluate the security of the system.
- Ongoing cybersecurity threat modeling and analysis by development teams for Power Advisor.
- Ongoing cybersecurity and data privacy training for all Power Advisor designers and developers.

Power Advisor is designed, operated, and maintained in accordance with data security controls as per AICPA, Trust Services Criteria TSP 100, 2017, hence achieving compliance to SOC2 Type2.

System architecture

The following diagram shows a high-level conceptual view of a Power Advisor system.



Data collection and transmission

All data for Power Advisor is sent through PME with cloud connection. Power Advisor only works with gateways that meet the globally recognized ISA/IEC 62443 cybersecurity standards.

This end-to-end cybersecurity, from gateway (PME) to cloud, ensures that all data sent to Power Advisor is from a trusted source. PME with cloud connection employs secure protocols for data transmission.

The following are some of the characteristics of the secure data collection:

- Data transmission between PME and the Schneider Electric cloud services is encrypted using TLS 1.2 (HTTPS) protocol.
- Only device measurement data and events are sent to the cloud services.
- All connections are from PME to the cloud services. There are no inbound connections to the customer IT network.

Cloud-based software

Power Advisor data is hosted in a secure Tier III Microsoft cloud service data center, certified to ISO27001. Information about Microsoft cloud services security can be found on the [Microsoft Trust Portal](#).

The Power Advisor application includes many operational security features, such as

- Strong password enforcement
- (Optional) Two-factor authentication
- Role-based access control
- Session timeout after a period of inactivity

Regular security updates are automatically applied to the Power Advisor cloud servers without user interaction.

Network Configuration

This section includes information required to configure customer network and firewall settings for cloud connectivity between PME and Power Advisor.

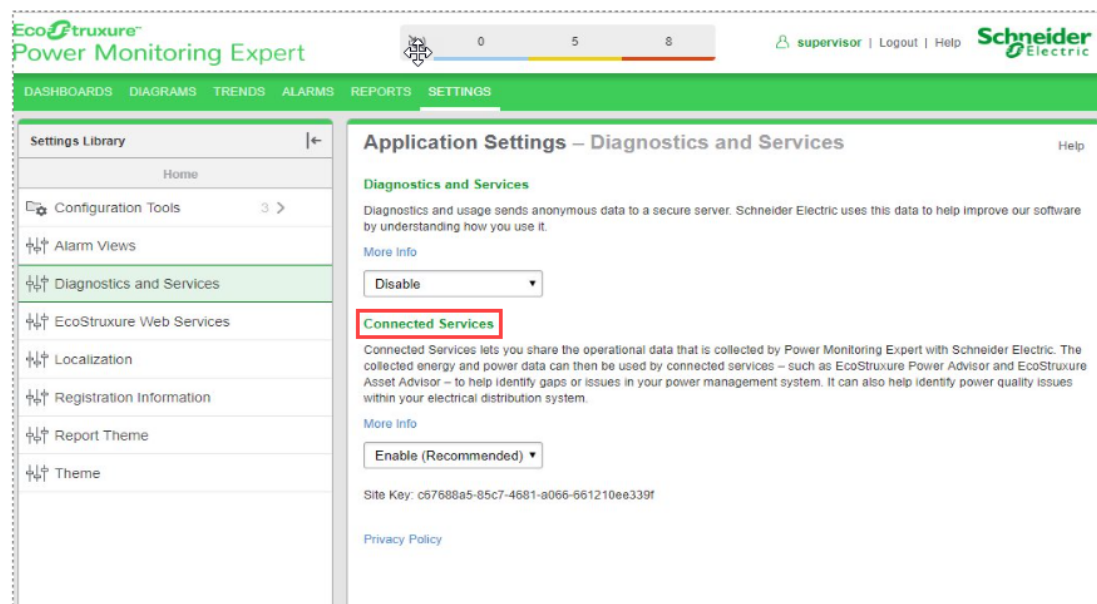
This chapter contains the following topics:

Topic	Description
PME with cloud connection	Learn about the security benefits of cloud-connected instances of Power Advisor.
Firewall Considerations	For cloud-connected instances of Power Advisor, learn the considerations required for firewalls.

PME with cloud connection

Power Advisor is a cloud-based application, meaning no software installation is required on-premise at the customer site. The field monitoring devices and edge software PME are installed locally within the customer facility for monitoring energy data. All data transmission to the cloud uses Message Queuing Telemetry Transport (MQTT) protocol over Secure HTTP (HTTPS) using a minimum of TLS 1.2.

Enabling **Connected Services** in PME automatically uploads power and energy data. Enable **Connected Services** in PME under **Settings > Diagnostics and Services > Application Services > Connected Services**.



Firewall considerations

PME with cloud connection requires an internet connection to send data to Power Advisor. PME with cloud connection sends data over HTTPS and uses the same ports on the network firewall as standard web browsers, making Power Advisor easy to integrate into your IT network.

Typically, you find one of the following integration scenarios:

- No special configuration is needed and the PME simply connects to the cloud services.
- The network uses a proxy server to access the internet. In this case, you need to configure PME with the proxy server settings, using the gateway setup webpage. (See the Panel Server and Site Server documentation for details on how to configure the proxy server settings.)
- The network uses a firewall that needs to be configured to allow the gateways to access the cloud services (also called endpoints). (See the list of required endpoints below.)

The following table details a list of endpoints that must be accessible to PME.

Endpoint	Description
powercloud.se.com (HTTPS/443)	Used to authenticate and register gateway. This is needed for the initial start-up or after a factory reset.
cnmiothubappstna.blob.core.windows.net (HTTPS/443)	Used to send site topologies from Site Server to the cloud server.
cnm-ih-na.azure-devices.net (HTTPS/443)	Used for communication between the Site Server and the cloud server. For example, to send configuration, measurement, or alarm data.
schneider-electric- fno.flexnetoperations.com (HTTPS / 443)	Used for gateway license checks. These checks are performed daily to confirm that the gateway has a valid license.

Operation

This section includes helpful information on monitoring and testing strategies employed by Schneider Electric and how the unique identifier Schneider Electric ID is the cornerstone of user authentication and authorization.

This chapter contains the following topics:

Topic	Description
Operational monitoring	Learn about monitoring practices and testing strategies employed by Schneider Electric.
User authentication	Learn how user authentication and authorization is driven by the Schneider Electric ID.

Operational monitoring and incident response

The Schneider Electric global operations team continuously monitors Power Advisor for security threats. Automated intrusion detection systems monitor data traffic and log all inbound and outbound activity.

Schneider Electric regularly performs penetration testing and are ready to manage vulnerabilities effectively in case of a cybersecurity incident. Schneider Electric have documented and tested procedures for a quick system recovery.

User authentication and authorization

To log in to Power Advisor, users need a Schneider Electric ID. A Schneider Electric ID is a unique identifier that is used across multiple Schneider Electric products and services. The Schneider Electric ID is part of the Schneider Electric Customer Identity and Access Management System, a centralized set of policies and technologies for authentication and authorization.

In Power Advisor, each user is assigned a role and access permissions that determine what the user can do and which data they can access.

Frequently Asked Questions

Question 1: How does EcoStruxure Power Advisor acquire data for analysis?

The data gathered and used by the Power Advisor (PA) analytics come from the Power Monitoring Expert (PME) edge software.

There are two methods for this data to be gathered and uploaded into Power Advisor:

- Manual Data Extractor application
- Automatically by enabling Connected Services in PME

Question 2: How to determine the preferred method of data extraction?

Manual Data Extractor

- Requires coordination to attend site; access the PME Server, and run the extractor tool (The coordination effort can be time consuming.)
- The effort to extract the data is very small
- Requires saving the extracted data on a medium – most facilities have restrictions about the utilization of USB flash drives for cybersecurity reasons
- Transferring the data from one physical location (customer site e.g.) to another may increase the risk of data corruption (Transferring data would require another site visit, thus more coordination effort, delays in running the analytics, and delivering the service to the customer.)
- The extraction effort must be repeated for each analysis
- The data for analysis is limited to the selected date range at time of extraction
- The map.xml file can be customized for a particular site with third-party devices

Connected Services in PME via Schneider Electric cloud

- Requires a simple, one-time effort to be enabled on the PME Server
- A free of charge capability providing a more efficient way to service our customers
- Schneider Electric cloud is a secure, encrypted Schneider Electric hosting solution with dedicated engineering resources adhering to industry-standard cybersecurity best practices
- Ideal for Schneider Electric connected devices only; does not support/include third-party devices
- Provides freedom in the date range for the analysis period
- Eliminates the need to be physically on site and transferring customer measurement data on a storage device

Question 3: *Does Connected Services provide additional analytics compared to Manually Extracted data?*

Yes.

Additional analytics include:

- The Manual Data Extractor can only gather timeseries data and does not include waveform captures
- If waveform data were to be extracted manually, it runs the risk of data corruption or unsuccessful operation due to the size of waveform files
- Waveform data can be transferred safely and reliably via PME Connected Services
- The **Voltage Sag & Swell** condition in **Electrical Health** is an analytics that uses waveform data and is only available for customer sites with **Connected Services** enabled

Question 4: *What is the frequency of data streaming?*

- Time series (measurement) data is uploaded using the same interval configured in PME for each device's data logger. PME controls the data logging interval for each device independently. The default logging interval is 15 minutes, but if the PME configuration has different intervals for some devices, these different intervals will be used. For example, it is possible to upload time series data from some devices every 5 min while others upload every 15 minutes.

Question 5: *Are there any IP-Address or DNS address that Power Advisor uses?*

- The DNS Power Advisor uses is controlled by the Schneider Electric cloud.
- Power Advisor does not use any permanent IPs.

Question 6: *Is an automated source code analysis tool used to detect security defects in code prior to production?*

- Yes. The Schneider Electric Secure Development Lifecycle process is certified to IEC-62443-4-1 by TUV. [The certificate can be found here.](#)

Question 7: *Are data input and output integrity routines (i.e. MD5/SHA checksums) implemented for application interfaces and databases to prevent manual or systematic processing errors or corruption of data?*

- Data integrity routines are implemented.

Question 8: *Is an agreed upon audit plan developed and maintained (e.g., scope, objective, frequency, resources, etc.) for reviewing the efficiency and effectiveness of implemented security controls?*

Yes. In addition to adhering to a Secure Development Lifecycle process as per IEC 62443-4-1, Power Advisor is developed, operated, and maintained in a framework achieving SOC2 Type2 compliance.

Question 9: *Do you allow tenants to view your SOC2/ISO 27001 or similar third-party audit or certification reports?*

- Schneider Electric can share third-party audit or certification reports when applicable.

Schneider Electric

35 rue Joseph Monier
92500 Rueil Malmaison – France

Phone: +33 (0) 1 41 70 00
www.se.com

As standards, specifications, and designs change from time to time, please
ask for confirmation of the information given in this publication.

© 2025 Schneider Electric. All Rights Reserved.

7EN02-0496-02 08/2025