



ENERGY AUTOMATION

SICAM Power Control

The powerful control application for photovoltaic plants (PV), BESS plants, hybrid plants (PV+BESS), and microgrids.

siemens.com/sicam-powercontrol

Challenge

Owners need fail-safe systems, lower operating costs, and flexibility for future expansion. Operators need better visibility and analytics. Integrators require a controller which is easy to deploy.

Solution

PV plant control, BESS plant control, hybrid plant control, or microgrid control: SICAM Power Control handles it all within a single, unified application. Designed with engineering efficiency in mind, SICAM Power Control's intuitive configuration environment significantly reduces project engineering hours, accelerates commissioning, and enables faster onboarding of resources due to template-based configuration. The seamless integration with Electrification X (Siemens' open digital platform for the energy sector) enables advanced cloud-based services like generation and consumption forecasting or asset performance analytics.

One application that works across every use case.

Modular functions to activate exactly what you need.

Designed to scale alongside your ambitions.

- Application fields plant and microgrid control
- Uniform hardware SICAM 8
- One engineering tool SICAM Device Manager

This results in your advantages

Reduction of project planning time

Streamlined workflows eliminate redundant configurations across multiple platforms.

Lower training costs

Mastering a single platform replaces the requirement for expertise in multiple systems.

Acceleration of completion

Faster commissioning thanks to a single engineering tool.

Future-proof operation

Modular design supports future use cases.

SICAM Power Control - One application. Modular functions. Designed to scale.

Coverage of use cases

- Photovoltaic system (PV)
- Battery energy storage system (BESS)
- Hybrid system (PV + BESS)
- Microgrid control

Different operating modes for

- Active power
- Reactive power

Grid support functions

- Power adjustment in case of frequency deviation $P(f)$
- Maximum power capability reduction with falling frequency
- Frequency Sensitive mode for over- and under-frequency (FSM)
- Limited Frequency Sensitive mode for over- and under-frequency (LFSM)

Battery functions

- State of charge management (SOC)
- State of charge balancing

Additional features

- Load sharing
- Fault ride through

Modularity with other SICAM 8 applications like

- SICAM Energy Control
- SICAM Operating Plan
- SICAM HMI

Asset monitoring

- Manual start/stop
- Automatic/manual operation of systems
- Dashboard overview based on SICAM-HMI

System monitoring

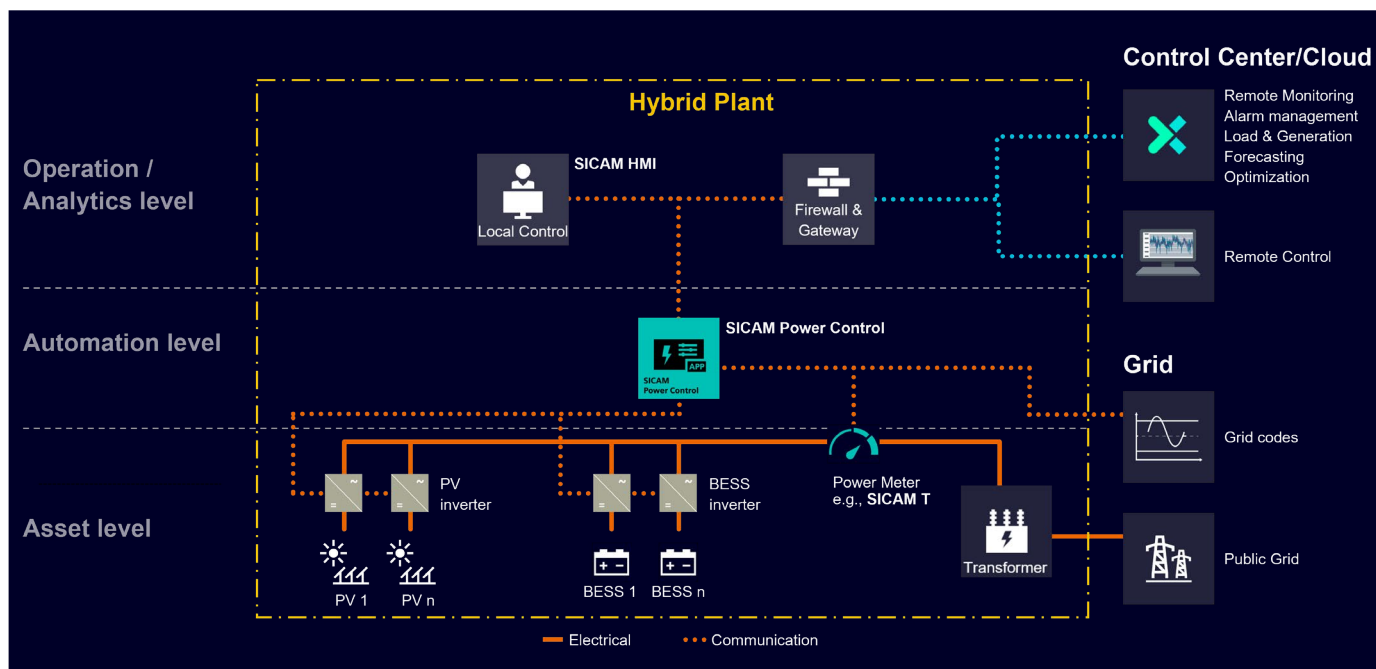
- Plant status
- Logging
- Event and alarm list
- Trend view

Security

- End-to-end security through IPSec
- Compliance with latest cybersecurity standards (NERC CIP, ISO/IEC 27001, IEC 62443, IEC 62351)

Communication

- Standard communication protocols like IEC 61850, IEC 60870-5-104, IEC 60870-5-101, Modbus TCP
- MQTT, RestAPI



Example diagram: Hybrid plant

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