SunIQ™ Integrated Plant Level Monitoring & Control System

INTEGRATED PLANT LEVEL CONTROL SYSTEM

GE's SunIQ™ system is an integrated plant level monitoring and control platform designed to bring together real-time plant-wide data visualization, data analysis, and troubleshooting with advanced plant level operational control to enhance grid integration of solar.

SUITABLE FOR LV5 AND LV5+ SOLAR INVERTERS

GE's LV5 and LV5+ solar inverters come enabled for GE's SunIQ™ monitoring and high-speed control technology.

IMPROVE SOLAR FARM AVAILABILITY

SunIQ™ is a reliable plant level control platform that includes modern networks, software tools, and diagnostics needed to increase system availability.

PLANT MONITORING

GE's Solar SCADA application provides a broad set of intuitive tools for a secure, real-time view of a solar plant's operation and maintenance. The web-based application allows for evaluation of plant performance using real-time and historical data to diagnose performance variation quickly, enabling rapid fault resolution. A range of supervisory control functions allow operators to remotely command plant set-points. GE's SunIQ™ solution can also be easily integrated into other third party or customer plant / enterprise level SCADA systems through standard industry protocols (ODBC / OPC-UA).

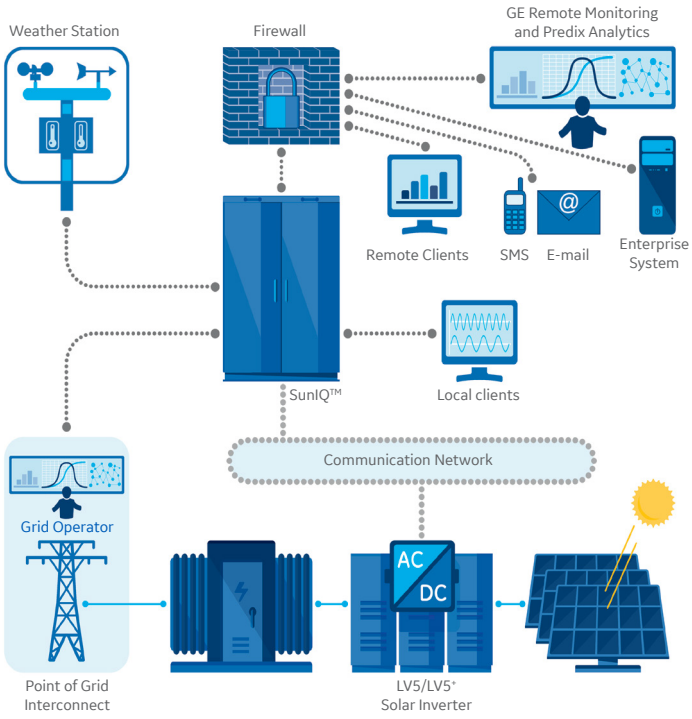
PLANT CONTROL

The SunIQ™ system includes a plant level controller that coordinates behaviour of multiple inverters, thus enhancing the grid integration capabilities. The system controls reactive power supply (KVAR) to the grid, regulating system voltage and stabilizing weak grids. The system is also capable of regulating active power (kW), providing the grid operator with the ability to curtail kW output as well as control frequency droop and ramp rate. The system can be accessed either locally or remotely via the plant monitoring system or through analogue/digital I/O.

SunIQ™ is supplied in an indoor enclosure as standard with options for plant control only and remote service only.

EXAMPLE SYSTEM HMI

TYPICAL SYSTEM ARCHITECTURE



GET CONNECTED

- SunIQ™ integrates GE's Visor product enabling secure connection back to base for remote support and analytics.
- Cyber security certified to Achilles Level 1

GET INSIGHTS INTO YOUR PLANT'S OPERATIONS

- Real-time data visualization of the plant
- User configurable dashboards
- Industry standard interfaces for data access
- Reporting based on historical data in SQL database

HELPS TO OPTIMIZE OPERATIONAL EFFICIENCY

- Alarm notification via e-mail/SMS
- Remote troubleshooting of plant assets
- Enabled for Predix analytics

CAN OPERATE SIMILAR TO CONVENTIONAL POWER PLANT

- Voltage/PF control: Regulates VARs, reduces voltage variations at point of interconnect (POI)
- Power curtailment: Regulates active power at the POI
- Over frequency droop: Reduces active power in response to frequency increase
- Ramp rate control: Controls MW/sec of generation change
- Start-up/shutdown: Avoids addition or removal of large blocks of power into/out of the grid at once

www.gepowerconversion.com/industries/renewables/solar

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