



# A Unified View of Renewable Operations

Ovation™ Green Asset Management and SCADA Software



**EMERSON™**

Multiple Assets + Increased Data + Different Systems =  
**More Complexity**

Renewable portfolios can be a mix of varying generating assets such as wind farms, solar farms or hydro plants and energy storage assets, including hydro pump storage, green hydrogen or lithium battery facilities.

Individual renewable units or arrays, clusters of similar assets or fleets of green assets typically operate with equipment from multiple manufacturers and are managed by a variety of control and monitoring automation technologies of varying vintages from different vendors.

Often, these systems don't easily integrate and limit data access necessary for providing a broad view of operations, both of which can hinder timely and effective decision-making.

Additionally, maintaining multiple systems can be time-consuming and costly.

This is particularly true on the SCADA or asset-management level where a unified view of operations is needed to efficiently and cost-effectively manage a portfolio of renewable generation and energy storage assets.



# Renewable Asset Management and SCADA Software

## Own your data to see, save and produce more

Emerson's Ovation™ Green renewable asset management and SCADA software provides clear operational visibility across a entire portfolio of sustainable energy generation and storage assets.

Emerson's scalable software reduces complexity challenges by enabling efficient management of single or multiple assets independent of the equipment manufacturer or varying system types and vintages.

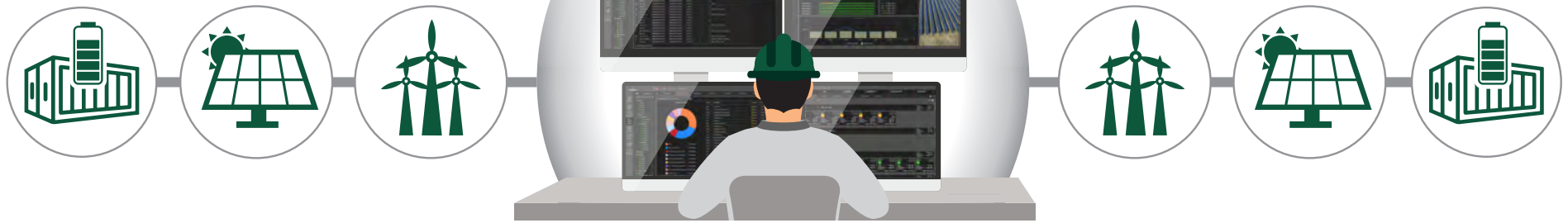
Secure, standardized access to a comprehensive set of centralized, unfiltered data at any time from anywhere provides greater insights into equipment health and optimization opportunities.

Full access to operations information enables owners or operators to anticipate maintenance needs, enabling quick and confident decision-making to avoid costly problems.

## Results -

- Maximizes annual production
- Increases revenue
- Reduces costs





## A Unified View of Operations that Drives Results

### Manage all Assets from One Platform

- Delivers a clear, simplified, consolidated window into fleet-wide operations
- Provides full access to aggregated multi-asset, multi-system data
- Supports different equipment manufacturers and varying system types and vintages
- Scalable for full control of a single site or multiple sites
- Reduces operating and maintenance costs
- Protects assets and data with comprehensive cybersecurity solutions that use a defense-in-depth approach

### Purpose-Built for Renewable Operations

- Simplifies portfolio management with renewable-specific functions
  - KPI dashboards, alarms, diagnostics and trends
  - Generation, GADS and dispatch reporting
- Promotes operational continuity and faster responses through task automation and a modern, efficient and user-friendly HTML-based interface

### Innovative Technology for Better Performance

- Self-maintenance of control strategies
- A secure, protected environment
- High-resolution data via direct communication with asset controls
- Connectivity to third-party systems
- Historical data analysis
- Customizable auto-reset wind turbine generator logic
- Event analysis tools
- Mimics equipment displays
- Production forecasting

### Trusted Expert Support & Service

- Comprehensive suite of end-to-end support programs from a globally trusted advisor with a history and reputation for unprecedented customer service
- Extensive global network of field and product engineers that provide local support
- Remote condition monitoring services by Level 3 vibration analysts
- Cybersecurity services that support NERC CIP compliance and best practices



## Purpose-Fit Deployment Options

Emerson's Ovation Green asset management and SCADA software is available by download in two versions, each designed to meet the unique demands and setups for utilities, service providers, OEMs and owners.

### Cloud

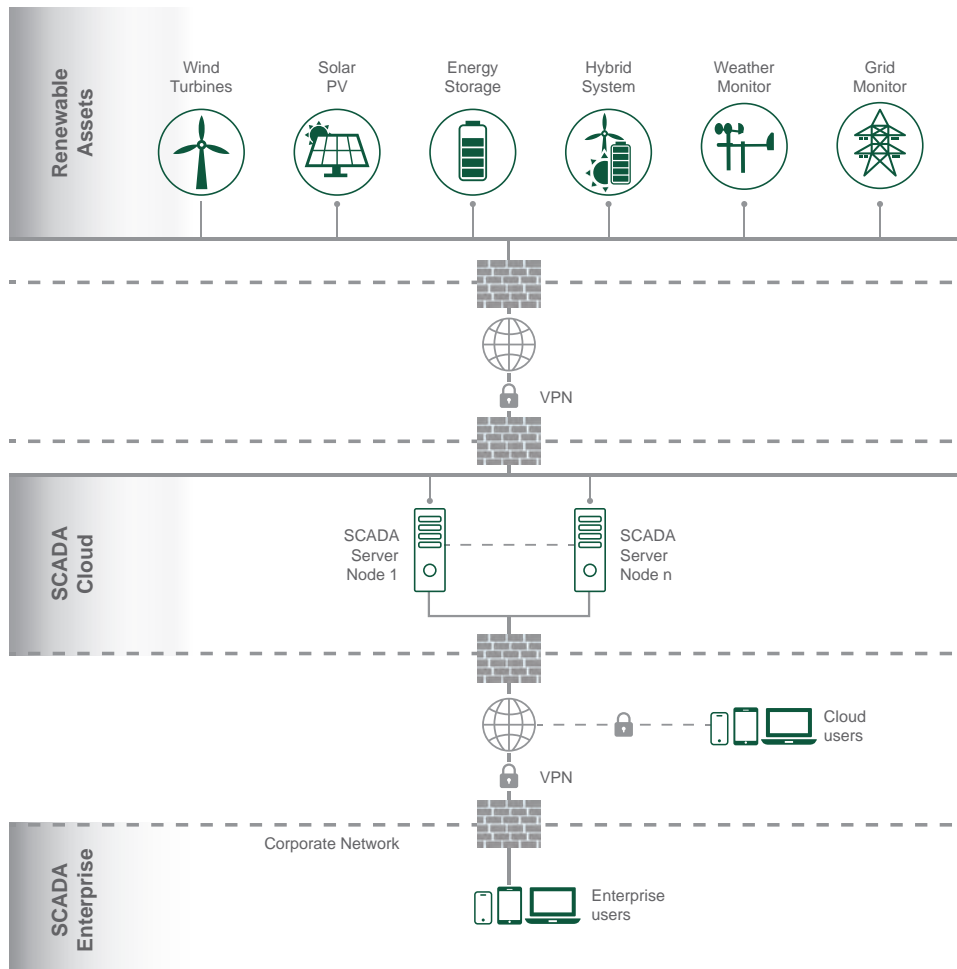
Cloud-based Ovation Green SCADA software automatically connects to renewable energy generation and storage automation systems to continuously monitor production, availability, impending issues and more.

Full access to operating data from a common web browser enables more informed decision-making for instant reaction to alarms and shifts in weather conditions – ensuring increased availability, decreased OPEX and ultimately, higher profits. Cloud deployment is a cost-effective hosted solution suitable for smaller renewable clusters.

### Enterprise

Ovation Green enterprise SCADA software provides the same value as the cloud-hosted version, with a focus on serving the increasing demands from renewable asset owners, operators, service companies and OEMs for a comprehensive view of fleet-wide operations.

Emerson's enterprise SCADA software is a fully flexible, scalable standalone or hosted solution developed for medium- and large-scale renewable portfolios that require the maximum level of data aggregation. Enterprise solutions can be expanded with add-on services like data synchronization, advanced in-depth data analysis, optimization strategies and training.



## Flexible and Open Design

Today's market demands software that is readily available, easy to maintain and integrates with other systems.

Emerson's Ovation Green asset management and SCADA architecture accommodates these demands by offering downloadable software, intuitive configuration tools, open protocols and database interfaces and collaborative design services to meet your specific needs.

Ovation Green SCADA is a modern Microsoft Windows- or Linux-based system consisting of one or more servers and a set of clients that displays data and interacts with other renewable automation systems.

The software includes a renewable SCADA server and Microsoft SQL database that stores configuration information and communicates with other systems through standard or proprietary protocols. Online and high-speed data stored in a highly effective Cassandra database enables fast data logging and retrieval for generating reports, analyzing performance and troubleshooting issues.

Ovation Green SCADA includes easy-to-use standard dashboards and configuration tools for designing custom views to fit specific needs.

Our flexible software can be implemented as a standalone solution or integrated as part of a more comprehensive automation retrofit program.

# Comprehensive Support

Optimize performance by supplementing your workforce with a team of global industry pioneers with local networks equipped with decades of expertise. Our expert resources can help you dependably define, implement and support an end-to-end lifecycle software and automation strategy for your renewable operations.

Partner with Emerson, a trusted adviser, to develop a comprehensive service and support plan that fits your renewable portfolio needs.

- **Consulting services** combine thought leadership, deep experience and leading technologies to solve high-stakes problems
- **Lifecycle services** provide the expertise, technology, and processes to operate safely, improve reliability and optimize your plant or equipment performance
- **Project services** provide a path to better project performance by reducing complexity, eliminating work and accommodating late change
- **Educational services** help increase your people's performance quality for better plant profitability and keep them up-to-date on automation technologies



For more information visit  
[www.Emerson.com/Ovation-Green](http://www.Emerson.com/Ovation-Green)



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