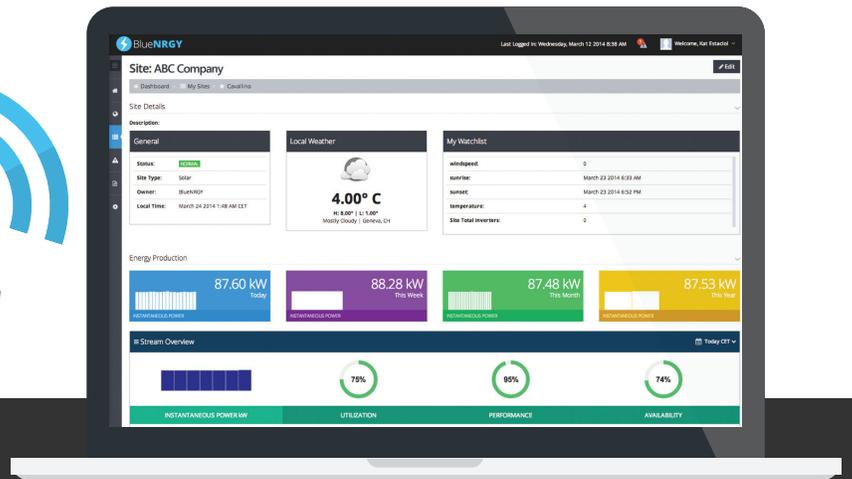




BlueNRGY Monitoring

Simple, powerful & efficient.

The next-generation solution in monitoring renewable energy power plants around the world.



The only energy monitoring solution you need – all in one place.

When it comes to remotely tracking and analyzing a power plant's energy production and staying on top of revenue performance, BlueNRGY puts users in complete control. BlueNRGY Monitoring 2.0 is an integrated energy monitoring solution that consists of its web-based software and industrial grade BlueBOX™ hardware device, which offers the most comprehensive suite of tools to owners, operators and asset managers to monitor, respond to and maximize any power plant installation.



Maximize energy efficiency potential



Quickly identify performance issues



Reduce system downtime



Boost the bottom line

Benefits.

From small- to large-scale renewable energy power plants, owners, operators and asset managers can enjoy a full range of benefits from BlueNRGY Monitoring 2.0.

Maximize energy efficiency potential.

Energy monitoring is an essential part of achieving maximum energy production. Through BlueNRGY Monitoring's web portal, you can easily monitor and manage your entire power plant portfolio 24/7, such as analyzing historical and real-time fleet-wide site production data; generating financial and technical performance reports; and monitoring the health of string and module level metrics.

Quickly identify performance issues & reduce system downtime.

BlueNRGY Monitoring enables you to mitigate risks and improve system efficiencies across your entire power plant portfolio by alerting responsible parties to system outages and underperformance metrics.

Boost your bottom line.

With convenient access and insight into real-time power plant data and added time-efficient tools that you can act on, you save on time and costs, which translate into a boost in your bottom line.

Device-agnostic solution.

The BlueNRGY Monitoring system allows you to monitor thousands of connected devices (i.e., inverters, meters, string boxes, weather stations) at the power plant site, regardless of hardware manufacturer.

Unlimited data storage.

BlueNRGY offers unlimited real-time and historical power plant data storage with backup and recovery systems, ensuring that your power plant data is always available to you.

See more and do more with plant data.

BlueNRGY Monitoring provides greater insight into your power plant's system performance by tracking more than just total kWh produced. We provide detailed data histories that meet the information needs of a broad range of energy customers – from high-level dashboard portfolio displays to viewing raw metrics of all connected devices.

Secure data access.

At BlueNRGY, we take data security very seriously. To give you the peace of mind knowing that your data and passwords are always protected, we use a 2048 bit encryption key verified by VeriSign for communication to and from BlueNRGY's servers – a security infrastructure leveraged by the world's leading financial institutions.

24/7 Network Operations Center (NOC).

BlueNRGY has the NOC infrastructure, resources and expertise to proactively monitor and analyze power plant portfolios for improved energy performance and uptime.

How It Works.

BlueNRGY Monitoring 2.0 is a device-agnostic system consisting of web-based software and industrial grade hardware that is designed to connect to and monitor renewable energy portfolios in all corners of the globe.

To collect and log a multitude of performance data from commercial installations of any size, we offer three different options for the data acquisition process based on industry best practices and a customer's specific needs, making BlueNRGY Monitoring 2.0 an ideal energy monitoring solution for even the most complex sites.

Option 1: Public Export

1. A public export to acquire data.

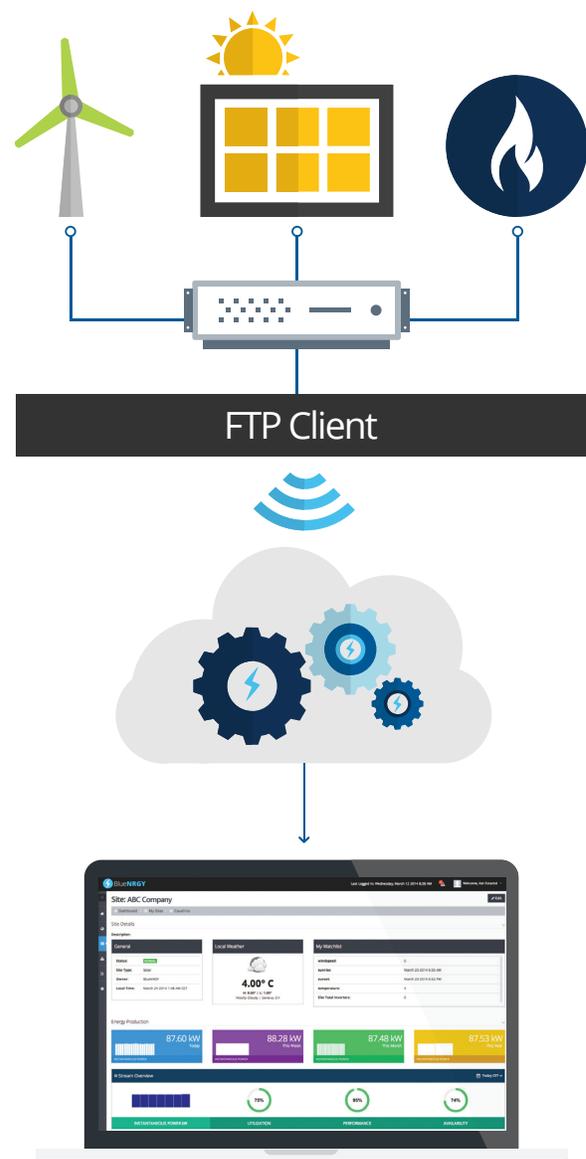
Customers who have already installed a compatible SCADA or data logger that supports an automated export via FTP and thereby do not require the BlueNRGY BlueBOX device, can push plant data directly to BlueNRGY's secure cloud servers.

2. Storing and normalizing power plant data.

BlueNRGY's secure cloud servers store and analyze site metrics of all power plant data and its connected devices (i.e., inverters, meters, string boxes, weather stations).

3. Web portal data visualization.

BlueNRGY sends real-time site metrics to our web-based monitoring portal where customers can immediately monitor and manage the current status of their entire power plant portfolio in one complete user-friendly interface.



Option 2: SCADA Export

1. A real-time SCADA export to acquire data.

BlueNRGY acquires plant data by installing its industrial grade BlueBOX device at the site, which directly connects to a locally installed SCADA system or data logger.

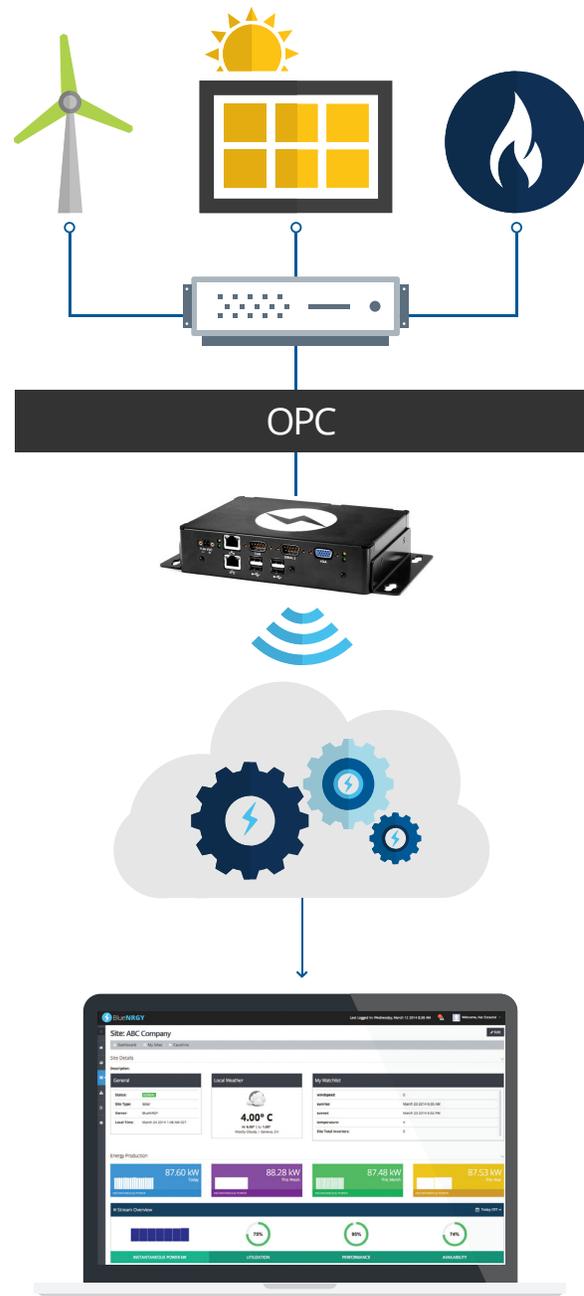
Once an IP connection is established between the SCADA system and the BlueBOX, BlueNRGY then exports all monitored data points via an existing OPC server and protocol provided by the customer. All data points read from the OPC server are then pushed to BlueNRGY's secure cloud servers at any configured interval you set.

2. Storing and normalizing power plant data.

BlueNRGY's secure cloud servers store and analyze site metrics of all power plant data and its connected devices (i.e., inverters, meters, string boxes, weather stations).

3. Web portal data visualization.

BlueNRGY sends real-time site metrics to our web-based monitoring portal where customers can immediately monitor and manage the current status of their entire power plant portfolio in one complete user-friendly interface.



Option 3: Direct Connect

1. A direct connection for data acquisition.

Best suited for installations without an existing SCADA system, install and directly connect our industrial grade BlueBOX device at the power plant using a Modbus communication protocol (i.e., serial RTU or TCP) to acquire real-time plant data.

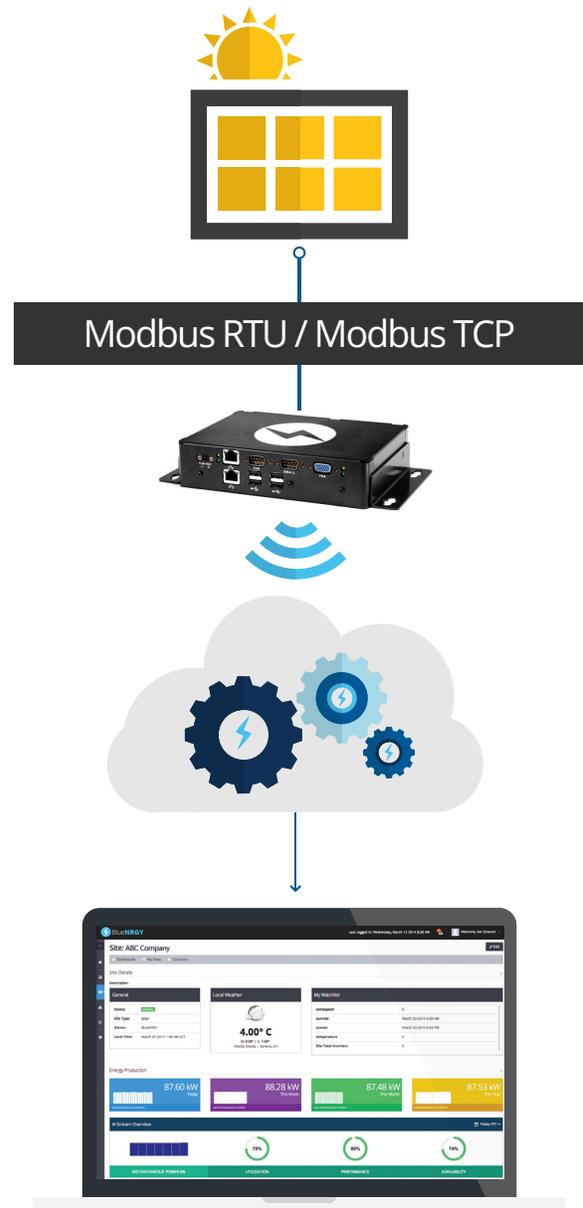
Once directly connected to the BlueBOX, our device pushes real-time plant data it collects to BlueNRGY's secure cloud servers at any configured interval you set.

2. Storing and normalizing power plant data.

BlueNRGY's secure cloud servers store and analyze site metrics of all power plant data and its connected devices (i.e., inverters, meters, string boxes, weather stations). Customer defined reporting can utilize historical data, if available.

3. Web portal data visualization.

BlueNRGY sends real-time site metrics to our web-based monitoring portal where customers can immediately monitor and manage the current status of their entire power plant portfolio in one complete user-friendly interface.



M2M SIM Airtime Connectivity Network Coverage

For customers with power plants in remote locations and require BlueNRGY's BlueBOX hardware device with highspeed Internet connectivity over a 2G/3G/4G wireless network for data acquisition, BlueNRGY offers M2M SIM Cards – data plans start as low as \$19 per month – specific to your country and required data usage.

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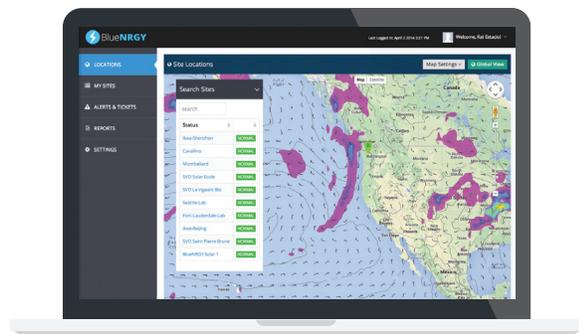
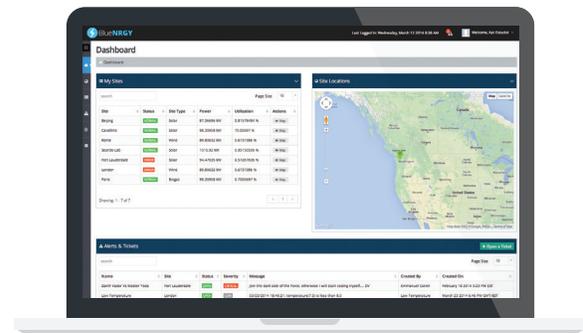
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Web Portal Features.

Through the fully configurable BlueNRGY Monitoring 2.0 web portal, you can remotely track actual versus expected energy production and revenue; generate financial and technical performance reports; set-up and manage automated system alerts; and much more!

Dashboard

- » Summary list of all sites and a selection of their key performance indicators (KPIs)
- » At-a-glance map view of all site locations
- » Summary of all open/active alerts and tickets that have been created in the system

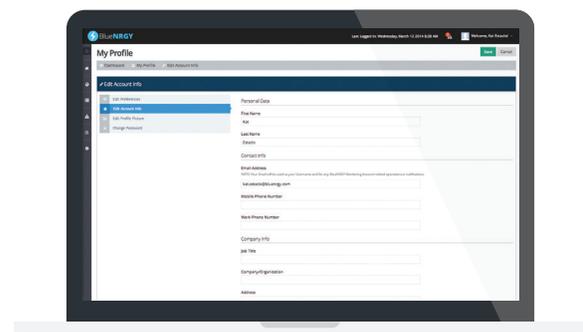


Locations

- » Google® Maps display of all power plant sites
- » Map and Satellite view options
- » Zoom, pan and street view options
- » Searchable site list of all power plants, including their real-time status
- » View air temperature, wind speed and direction, cloud coverage, and daylight overlays
- » Google Earth view option

Account Profile & Preferences

- » Personalized interface, such as edit and manage profile information, upload a user profile picture, and change password
- » Multi-language support in English, French, German, Spanish, Chinese, Russian, and Italian
- » Manage alert/ticket email notifications



Site Detail

- » Real-time status, site type, owner and local time
- » Local weather forecast at a site
- » Create and edit a custom Watchlist of important key performance indicators (KPIs)
- » Configure and dynamically chart energy production such as performance, availability, utilization, instantaneous power kW, and much more
- » Configure and chart actual versus expected revenue production
- » Create and edit Event Handlers for alerts/tickets based on type, severity, and custom expressions
- » Hierarchal device list with current status
- » Upload graphical views / schematic diagram files related to a selected site



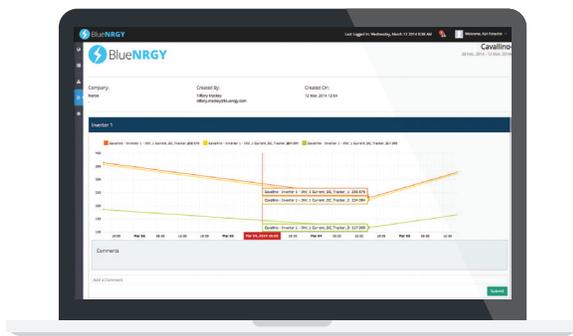
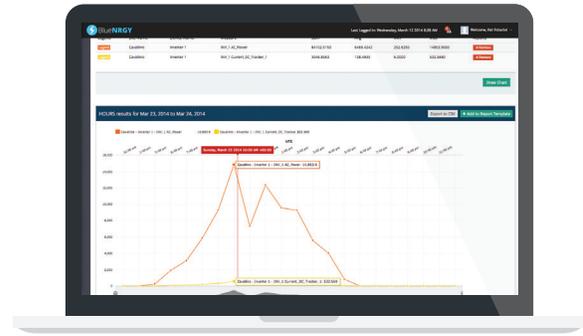
Name	Tag	Status	Severity	Message	Created By	Created On	Closed On
Low Temperature	100	Open	Warning	Low temperature detected on the inverter. Please check the inverter temperature and take appropriate action.	System	2014-10-20 10:00:00	
Low Temperature	100	Open	Warning	Low temperature detected on the inverter. Please check the inverter temperature and take appropriate action.	System	2014-10-20 10:00:00	
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Low Temperature	100	Open	Warning	Low temperature detected on the inverter. Please check the inverter temperature and take appropriate action.	System	2014-10-20 10:00:00	

Alerts & Tickets

- » View all system-generated alerts (i.e., loss of connection, low site performance, inverter clipping, high hardware temperatures)
- » View, create and submit user-generated trouble tickets
- » Assign tickets to support staff, ensuring ownership of a ticket
- » Set and manage statuses and priorities of alerts/tickets to match business needs
- » Receive real-time emails of power plant outages
- » Receive a daily summary email of all active alerts/trouble tickets
- » Comment on system- or user-generated alerts and tickets
- » Advanced search to help you look for alerts/tickets matching a specific field value

Analysis

- » Analyze any site's power plant data based on select date ranges, intervals and in any combination of data sources available
- » View the sum, min, max and avg metrics
- » Export an analysis chart to CSV format for further analysis
- » Add an analysis chart to a report template



Reports

- » Generate simple, pre-built reports of site performance and an executive summary
- » Create custom, reusable report templates to display user-defined metrics in the form of charts or tables
- » Create, edit and remove report templates in line with specific business requirements via a custom report-building module
- » Comment on report sections
- » Print reports to PDF



Software Support

BlueNRGY offers software support services where we work with you to develop new software features that enhance the BlueNRGY Monitoring solution.

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