# **EnergyPQA.com**<sup>®</sup>

Al Driven Energy Management System



## Empower Energy Management Decisions With a Simplified Userfriendly Interface

The EnergyPQA.com<sup>\*</sup> Al driven energy management system transforms traditional energy management by identifying the most energy wasteful facilities and circuits and those with the highest power quality risk. Maximize energy efficiency improvements and increase electrical reliability by using the system's deep power quality insights to focus on the least efficient and least reliable circuits. Make the biggest improvement in energy usage efficiency and reliability by spending time and resources where they are most needed and where they will have the most impact.

The EnergyPQA.com<sup>\*</sup> energy management system reduces your enterprise energy costs in multiple ways. The system's AI algorithms predict usage trends into the future, so that you can be proactive in reducing demand and saving on energy costs. Power quality email alerts enable quick response to avoid equipment damage and expensive downtime. Predicted peak demand email alerts up to three days in advance support demand mitigation efforts to avoid costly penalties. And focusing on facilities and circuits most in need of repair ensures that money is spent where it will have the most impact on the enterprise's bottom line.

#### EnergyPQA.com<sup>\*</sup> Unique Features:

- Enterprise level energy usage analysis and facility comparisons.
- Custom reporting with AI predictions.
- C-Suite reporting that provides actionable insights for your facilities.
- Identification of energy inefficiency from enterprise to facility to circuits.

Power usage effectiveness (PUE) for data centers.

- Automatic grading of your facilities for risk of downtime and equipment failure.
- Detailed waveform analysis and key insights.
- Alarming for critical events, such as power quality or energy demand penalties.
- Cyber secure, encrypted data, dual factor authentication, and security reports.
- Sustainability reporting for carbon footprint and green initiatives.
- Energy billing, cost allocation, and executive summary usage reporting.



Current and predicted commodity usage and costs.





Export data to third party applications using DataLink<sup>™</sup> API.



HUBBELL





## Reduce Electrical Energy Costs Using Enterprise Energy Analysis

The EnergyPQA.com<sup>\*</sup> Al driven energy management system enables energy usage comparisons and predicts energy usage and demand for all your facilities. The system reports on highest energy usage and highest peak demand contributors to pinpoint problem areas. Improve energy efficiency and reduce power consumption by using the system to identify poorly performing buildings and implementing energy conservation. Track all commodity usage in a facility, eliminating discrete systems for water, air flow, gas, electric, and steam (W.A.G.E.S.) meters.

#### **Energy Dashboards**

The system's dashboards make it easy to view differences in energy and other commodity usage throughout a facility. View top ten monthly usage and demand, daily usage comparisons, energy usage compared to the previous month, and monthly average power factor. Compare and benchmark different metering points to determine energy waste within a facility.

#### Normalize Data by Degree Days for Comparisons

EnergyPQA.com<sup>\*</sup> can now normalize your data by degree days, occupancy, and square footage. This enables you to accurately compare your facilities based on location and usage.

#### Load Disaggregation

Load disaggregation identifies the contributors to the total facility load. Break out discrete energy loads within a facility to locate inefficiencies and proactively predict equipment failure.

#### **Totalized Metering**

Create virtual sums of energy for a particular usage, such as lighting, plug load, and HVAC. This enables clear comparisons and compliance reporting.



#### **Energy Accountability**

Drive sustainability and energy efficiency programs by billing tenants for their actual usage rather than proportional square footage charges. This direct accountability for their energy use promotes sustained energy conservation behavior and saves up to 15% on total energy costs.



Energy Efficient Buildings Can Consume up to 85% Less Power



Compare Top Ten Monthly Energy and Demand Users to Identify Energy Waste



Load Disaggregation to Locate Energy Usage



EnergyPQA.com<sup>\*</sup> Provides Usage Versus Temperature and Actionable Predictions

## **Predictive AI Analytics Help Manage Demand and Usage**

#### Provide More Accurate Energy Predictions by Using Advanced AI Modeling Tools

The EnergyPQA.com<sup>\*</sup> system uses an advanced AI data science model that includes present data, past data, weather patterns, and future fore-casts. The system is self-learning, so that it improves the accuracy of its load predictions over time.

#### Alarm on Future Peak Demand to Reduce Penalties

The EnergyPQA.com<sup>\*</sup> system uses its AI modeling and machine learning to send alarms on a new predicted peak demand three days prior to the event occurring. This lets you enact preemptive demand reduction, to reduce demand penalty charges.

## Ensure Success for Energy Conservation Initiatives by Viewing Predicted Energy Usage

Use the EnergyPQA.com<sup>\*</sup> system's predictions to assess energy savings opportunities. Then determine the effectiveness of load curtailment initiatives by viewing the changing future predicted usage, ensuring that implemented plans are successful.





## Benefits of Predicted Demand Alarms

EnergyPQA.com<sup>\*</sup> predicts when your facility will reach a new peak demand and alarms your team. This allows corrective behavior to mitigate utility penalties and save you money.

- Receive early warning of new peak demand three days in advance.
- Make meaningful decisions to reduce demand penalties before charges are incurred.
- Conduct demand response or adjust electrical usage for the energy system on the predicted day, to reduce or eliminate the penalty.

| Events Alarm by EnergyPQA: Alert_PQ   |   |  |  |  |  |
|---|---|--|--|--|--|
| Noreply<br>To © Neena Deibler   | ← Reply ← Reply All → Forward · · · ·<br>Mon 5/3/2021 2:26 PM |  |  |  |  |
| Hello,  |   |  |  |  |  |
| EnergyPQA.com has predicted a new peak demand will be set on 09/17/2021 at 09:00PM at your Xanterra - El Tovar facility. The<br>new predicted peak demand is set to exceed the prior peak demand by X%. |   |  |  |  |  |
| You should plan mitigation strategies now to ensure utility penalties do no   | apply.  |  |  |  |  |
| Please click <u>HERE</u> to view  |   |  |  |  |  |
| Thanks,   |   |  |  |  |  |
| EnergyPQA.com Robot   |   |  |  |  |  |

Alarm Emails Alert Users to Predicted Peak Demand





## Water, Air Flow, Gas, Electric, Steam (W.A.G.E.S.)

#### Manage All Facility Commodity Usage

- Analyze water, air flow, gas, electric, and steam (W.A.G.E.S.) usage from pulse or analog inputs of EIG meters.
- Predict on commodity usage and costs through the end of the month.
- Disaggregate total commodity costs.
- Leak Detective <sup>™</sup> discovers facility leaks.
  - Identify commodity waste and areas in need of repair.
  - For water, higher than expected flow rate.
  - For air, lower than usual air flow (for analog inputs only).



W.A.G.E.S. Current and Predicted Usage and Costs, with Leak Detective <sup>™</sup> Feature

## **Customizable Report Generator**

Use the EnergyPQA.com<sup>\*</sup> system to generate custom reports as needed. Schedule emailed reports for daily, weekly, monthly, or custom distribution.

## Standard report templates enable easy and quick setup. Report templates include:

- Total watts.
- Energy in the interval.
- Demand in the interval.
- Voltage and frequency.
- Watts, VAR, VA.

#### Custom report templates include:

- Titles.
- Simple formulas.
- Complex formulas.
- Summation and averaging.
- Date and time of max reading.

THD.

•

Degree days.

Load disaggregation.

with new readings.

All reports can be edited

- Bar, line, and pivot charts.
- P Real time report preview.
- Standard spreadsheet editing format.



Quickly Create Reports Using Report Templates

## DataLink<sup>™</sup> API

Easily export the EnergyPQA.com<sup>\*</sup> system's data to a third party application using the DataLink<sup>™</sup> API. EnergyPQA<sup>\*</sup> data is exported in a standard JSON format for direct import into another application or system. Data collected through the API includes all log data from the system events, historical, power quality, limits, and waveform logs; and carbon footprint (CO2) data. Role-based authorization provides security for the DataLink<sup>™</sup> API.

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## Reduce Risk and Improve Uptime Using Power Quality Analysis

Downtime caused by power outages results in billions of dollars lost annually. It is estimated that 50% of mission critical power outages are due to power quality issues and that 80% of these issues originate in facilities. Identify power quality events within your critical facilities and take action before PQ events become catastrophic.

#### EnergyPQA.com<sup>®</sup> Unlocks Your Hidden Power Quality Problems

- Facility and circuit level power quality risk grading.
- Compliance to EN 50160 and IEEE 519.
- Transient analysis with CBEMA and SEMI F47.
- Waveform viewer surge and sags.
- Harmonic magnitudes and THD.
- Phase imbalance and PF analysis.







Waveform Viewer



**THD** Reporting

#### **Record and Share Waveform Insights**

Site analysis requires a team approach. EnergyPQA.com<sup>•</sup> now allows you to annotate events with comments and timing and to save those comments in the database to share with others and to keep a historical perspective.



Single Cycle Waveform with RMS Data, Range Marker, and Annotation

#### **Recover From Faults with PQ Direction and Power** Harmonic Direction

When an event occurs, being able to pinpoint the exact location of the fault ensures speedy recovery and timely mitigation of losses. Using its PQ Direction algorithms, EnergyPQA.com<sup>\*</sup> will identify the location of the fault, either upstream or downstream from the device, so your team can take immediate action. Power Harmonic direction is also available.



EnergyPQA.com\* Pinpoints Location of Fault and Power Harmonic Direction

## Alarm on Events Supports Timely Action and Issue Resolution

Receive email alarms on enterprise wide power quality events and out of limit conditions. These alarms include:

- An out of limit condition, including W.A.G.E.S. leak detection.
- A new power quality event.
- A new meter-captured waveform graph of a high-speed power quality condition.

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Receive Emails on Alarm Conditions

## Enterprise Level Reporting Provides Analysis for Your Complete Business

#### Analyze Energy Usage - Grade Facilities and Identify Potential Savings

Perform analysis of your enterprise energy usage with the EnergyPQA.com<sup>\*</sup> system's enterprise level reporting. Compare the following for each of your facilities:

- Total energy usage.
- Energy used per square foot.
- Energy used per occupant.



#### **Compare Usage**

View predicted energy usage through the end of the month and year and usage change from the prior month and year, for your enterprise and each facility. The enterprise comparison feature also provides the following graphs:

- Total usage for the past five years, for energy, energy per square foot, energy per occupant, and CO2 footprint.
- Top ten facilities for usage and predicted usage through end of the month.
- Enterprise usage comparison between current year and prior year, for each facility.

| Energy in Interval Kivin  | 01+4   | + Last 7 days  | = +  |
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View High-level Enterprise Summary and Facility Energy Usage Comparisons

#### **Determine Sustainability with Carbon Footprint**

Analyze your carbon footprint per facility and for the total enterprise to measure your impact on the environment and meet sustainability goals. This is ideal for net zero and carbon neutral initiatives.

| <b>() ENERGY</b> POA.com   | Webcome   | Facilities Meter                                    | s Enterprise Scheduler Settings                       |  |  |
|--|---|---|---|--|--|
| Enterprise Comp  | are   |   |   |  |  |
| Energy in Interval: KVIh Q1+4  |   | 08202021-11/01/2021                                 | ,   |  |  |
| Enterprise Summary   | CO2 Footprint   | Cost  | Risk  |  |  |
| 8 Facilities<br>1.346.656 Total Square Feet<br>1.676 Total Occupants<br>5 Energy per Sq. Foot<br>5.250 Energy per Occupant                                 | <b>1,409</b>  | 1,134,72<br>YTD Energy<br>1,233,44<br>Predicted V/E | 0 25<br>Worst Risk Factor<br>13<br>Average Enterprise |  |  |
| Facility Performance   | Facility Efficiency   |   | Facility Risk   |  |  |
| 3 Facilities Benchmark Efficiency<br>4 Facilities below average Efficiency<br>4 Facilities Benchmark Risk Factor<br>4 Facilities below average Risk Factor |   |   | 25% 10% 75% 100%                                      |  |  |
|  | Morrig Pie Botton 2 grades to<br>The the Case Yants<br>Potential Savings Per Year<br>S 171, 797 |   | 6x<br>otential Risk Reduction                         |  |  |

Easily View Summary of Enterprise Energy Usage and Carbon Footprint

View Current and Predicted Enterprise Facility Energy Usage Comparisons

### **Reduce Costs and Mitigate Risk** with C-Suite Reporting

C-Suite reports provide detailed analysis of enterprise facilities and their individual circuits. Use these reports to identify the least efficient and highest power quality risk areas of your enterprise. Then take actions to improve the worst facilities and circuits.

- Improve energy efficiency by determining the least efficient circuits in the worst facilities to make the biggest improvement. Reducing energy waste results in cost savings.
- Improve electrical reliability by determining the facilities and circuits with the highest power quality risk. Increase the reliability of the least reliable circuits in the most at-risk facilities to improve enterprise power quality, improve safety, and reduce costs for maintenance and repairs.

## C-Suite Reports Perform Analysis and Recommend Action

The EnergyPQA.com<sup>\*</sup> energy management system uses enterprise wide metering data and advanced AI algorithms to produce two types of C-Suite reports – cost management and risk mitigation. These reports reduce engineering analysis time by up to 98% by identifying the specific circuits that will have the most impact on cost savings and power quality risk reduction. A typical use case is shown in the diagram below.



Use EnergyPQA.com\* to Narrow Down Most Wasteful Circuits

Instead of spending engineering time and resources analyzing data manually, generate C-Suite reports that provide the information needed in a matter of minutes. The EnergyPQA.com<sup>\*</sup> system analyzes all your enterprise facilities and their multiple circuits to identify the worst circuits in the worst buildings. This provides a focused path to substantially improve energy efficiency and reliability for the enterprise. The Cost Management and Risk Mitigation C-Suite reports have three versions each:

- C-Suite Summary to highlight critical enterprise issues in 30 seconds.
- Enterprise Benchmark to compare facilities and uncover hidden issues.
- Single Facility Performance for a detailed view of one facility and its circuits, to identify corrective actions.

The reports can be viewed in an Internet browser, downloaded, printed, or can be scheduled for automatic emailing to multiple addresses.

#### **Cost Management C-Suite Reports**

Use the Cost Management reports to analyze facility and circuits' energy efficiency and pinpoint improvements that will reduce energy costs.

The single page Cost Management summary report provides:

- Enterprise facilities graded for energy efficiency.
- Potential cost savings from moving facilities with grade F to grade A.
- Total energy cost per facility for the month.
- Total enterprise energy costs year-to-date and predicted to year's end.
- Total enterprise energy costs year-to-date per square footage and per occupant.
- Total enterprise year-to-date CO2 output (carbon footprint).



The detailed Cost Management benchmark report provides explanatory material and multiple tables, including:

- Executive summary overview showing results of the enterprise energy efficiency analysis, with projected cost savings.
- Enterprise facilities graded for energy efficiency, with square footage and occupancy information.
- Enterprise facilities ranked by their energy efficiency, with an explanation of the ranking process.
- Year-to-date energy costs per facility compared to previous year.
- Top ten facilities with greatest energy usage year-to-date and normalized by:
  - Square footage.
  - Occupancy.
  - Degree day.

A page from the Cost Management benchmark report is shown below:



Year-to-Date Energy Use Normalized by Occupancy

The Cost Management facility report provides detailed energy usage information for all circuits in one facility. Use this report to further analyze the cause of energy inefficiency in the worst enterprise facilities. The report analyzes all facility circuits and grades them, highlighting the circuits most in need of improvement. By taking steps to increase the energy efficiency of the worst circuits, energy usage costs for the entire enterprise are reduced.

The Cost Management facility report contains:

- The facility's grading information.
- Ranking details.
- Details of the facility circuits' energy usage and costs.
- The top ten year-to-date circuits for energy usage versus the previous year.
- Facility circuits' energy usage by degree days.
- Increase/decrease in energy usage for facility circuits year-todate.
- Detailed usage, cost, and demand information for each facility circuit.

A page from the Cost Management facility report is shown below.



Per Circuit Energy Usage and Demand Details

#### **Risk Mitigation C-Suite Reports**

Use the Risk Mitigation reports to analyze facility and circuits' power reliability to pinpoint improvements that will increase power quality, improve safety, and reduce the cost of maintenance and repairs.

The single page Risk Mitigation summary report provides:

- Enterprise facilities graded for power quality risk.
- Potential power quality risk reduction and cost savings from moving facilities with grade F to grade A.
- Worst at-risk buildings for the current year-to-date.
- Total of voltage events year-to-date.
- Total of voltage harmonics year-to-date.
- Total of current harmonics year-to-date.
- Top 5 at-risk facilities for the current month.



Example of Risk Mitigation Summary Report

The detailed Risk Mitigation benchmark report provides explanatory material and multiple tables, including:

- Executive summary overview of results of the enterprise power quality risk analysis, with projected risk reduction and cost savings on maintenance and repairs.
- Enterprise facilities graded for energy efficiency, with square footage and occupancy information.
- Enterprise facilities ranked by their risk factor, with an explanation of the ranking process.
- Top ten facilities with greatest risk factors year-to-date.
- At-risk facilities by voltage surge, listing high, medium, and low risk facilities.
- At-risk facilities by voltage harmonics for all voltage phases.
- At-risk facilities by current harmonics for all current phases.

A page from the Risk Mitigation benchmark report is shown below.



At-risk Facilities Based on Voltage and Current Harmonics

The Risk Mitigation facility report provides detailed reliability information for all circuits in one facility. Use this report to further analyze the cause of unreliability and power quality risk in the worst enterprise facilities. The report analyzes all facility circuits and grades them, highlighting the circuits most in need of improvement. By taking steps to increase the reliability of the worst circuits, the power quality risks for the entire enterprise are reduced.

The Risk Mitigation facility report contains:

- The facility's grading information.
- Ranking details.
- Details and analysis of the facility circuits' voltage events.
- The top ten year-to-date circuits with the highest power quality risk versus the previous year.
- The top five facility circuits at-risk for voltage events, voltage harmonics, and current harmonics.
- Detailed power quality risk analysis (voltage events, voltage and current harmonics, and THD) for each facility circuit.

A page from the Risk Mitigation facility report is shown below.



Facility Voltage Events for the Month

## Enterprise Billing Module Provides Cost Allocation and Tenant Billing

## Up to 15% Savings are Realized through Submetering and Energy Awareness Alone

- Control costs by providing tenant ownership of energy consumption.
- Determine inefficiencies and reduce energy demand.
- View consumption of all usage commodities, including water, air, gas, and steam.
- Meter virtually unlimited amounts of energy points.
- Create customized rate structures.
- Perform Time of Use billing.
- Create customized invoices and bills.
- · Generate hundreds of automated bills or energy reports.
- Automatically email bills and invoices.
- Provide feedback of successful transmission for accounting purposes.
- Provide automated reporting to detail savings opportunities.
- View monthly cost summaries and comparisons.
- Eliminate any need for costly third party billing providers.



Create Customized Tenant Bills and Invoices

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|   |  |   | B1: 0 . 1000  |  | 1000   | 0.01  |                                    |
|   |  | 82: 100   | E2: 1000 - 2  | 000  | 2000   | 0.02  |                                    |
|   |  | 1.1   | EG: Over 20   | 00   |  | 0.03  |                                    |
|   |  | Tie<br>Tie<br>Us<br>all                                 | B3: Over 20<br>red Rates are c<br>, add the upper<br>age over the hig<br>over finer billing | hanges that vary of<br>usage for that Ti-<br>hest Tier will be a<br>detail. Each range | lepending of the<br>incland the<br>subomatical<br>a can have | 0.03<br>on the amount of use<br>rate to be applied to<br>by computed. Adding<br>a unique tier structu | ige. Fo<br>that us<br>Range<br>re. |

### Reduce System Commissioning and Eliminate Integration Problems

The EnergyPQA.com<sup>\*</sup> system's meter data management is handled at the facility by the MeterManagerPQA<sup>\*</sup> software module. This module automatically finds and collects data from installed facility meters, reducing commissioning and eliminating the need for internal IT and Engineering resources.

#### MeterManagerPQA' software provides the following:

- Auto discovers meters, groups them, and automatically collects historical usage, power quality, and alarm data.
- Securely pushes metering data, including all logs, alarms, waveform, and PQ information, to the EnergyPQA.com<sup>\*</sup> cloud system on an interval basis.
- Stores data locally if network issues occur, the system provides a fail-safe since all data will be pushed to the cloud once the network is restored.
- Reports on meters' communication issues and provides statistical data on communication reliability.
- Determines installation and wiring mistakes.
- Automates most tasks, reducing the need for IT technicians.

## **Cyber Secured Access**

The EnergyPQA.com<sup>\*</sup> system protects your data from hacking or tampering. Its encryption technology and secured access meet corporate IT security requirements. The system has role-based authorization, encrypted passwords, and API keys, as well as network security SSL encryption and intrusion detection. EnergyPQA.com<sup>\*</sup> monitors your metering devices and system software to ensure they are up-to-date with the latest cyber secure protocols.

EnergyPQA.com<sup>\*</sup> utilizes cloud computing architecture. Data integrity is protected with redundant storage at the customer site and in the cloud. Data is further protected with firewalls.

#### Key security features include:

- Secured cloud computing architecture.
- Data stored redundantly.
- Network security: SSL encryption.
- Role-based authorization.
- Dual factor authentication.
- Encrypted passwords and API keys.
- Data security: firewalls, intrusion detection, and encryption.
- One-way data push prevents breach of the network.



One Way Data Push Alleviates Concern Over IOT Opening Ports into Customer VPN or Network

## CommunicatorPQA<sup>®</sup> Application: Basic Support for All Installed EIG Metering

#### **Meter Settings Configuration:**

Configure your meters to meet the needs of your energy monitoring goals, using the CommunicatorPQA<sup>\*</sup> application. The application's structure is intuitive and easy to use. Meter settings are organized into related groups and an online manual with detailed instructions is embedded in the application.

- Set up meter communication, including Com port address and Baud rate, IP address for Ethernet ports, protocols, mode of operation (e.g., Modbus RTU Client), etc.
- Configure the meter's time synchronization method and DST programming.
- Set up revenue features, such as Transformer/Line Loss compensation, CT/PT compensation, and Time of Use.
- Set up advanced options, for example, synchrophasor PMU settings, IEC 61850 settings, port control for Ethernet cards, and more.
- Perform meter testing.
- Configure and designate roles for meter security.

#### 



| evice Profile: C | T and PT Ratios    |                      |                            |                    |                      |
|------------------|--------------------|----------------------|----------------------------|--------------------|----------------------|
| CT Ratio         |                    |                      | PT Ratio (Line to Neutral) |                    |                      |
|                  | Primary<br>Current | Secondary<br>Current |                            | Primary<br>Voltage | Secondary<br>Voltage |
| I A, B, C        | 5.00               | 5.00                 | V A, B, C                  | 120.00             | 120.00               |
| IN               | 5.00               | 5.00                 | V AUX                      | 120.00             | 120.00               |
| Hookup           |                    |                      | Total VA/VA                | h Computatio       | n Method             |
| Wye              |                    | •                    | Arithmet                   | ic Sum             | •                    |
| Frequency Range  |                    |                      |                            |                    |                      |
|                  | 50                 | )/60Hz               |                            | <b>_</b>           |                      |
|                  | W                  | ide Band Auto        | )                          |                    |                      |

Easily Configure Meter Settings

#### 



Waveform Screen

#### LogViewerPQA:

EIG's LogViewerPQA is the charting and graphing application that comes standard with CommunicatorPQA<sup>\*</sup> software. This application is database driven. It normalizes data from any EIG meter, so that it is displayed in a concise, easy-to-understand presentation. This feature is useful for local meter integration. All log data is also available in the cloud.

Depending on the meter, the available logs are:

- Historical Trends.
- Relay Outputs.

System Events.

- Limits/Alarms.
- Event-triggered Waveforms.
- Power Quality.
- Input Status Change.
- Transients.
- EN 50160.

Flicker.

### Benefits of the EnergyPQA.com<sup>®</sup> Solution

The EnergyPQA.com<sup>\*</sup> Al driven energy management solution yields benefits to all enterprise levels.

#### Enterprise CEO, CFO and CIO (C-Suite) Concerns:

Reducing energy costs and improving reliability of their electrical power. With C-Suite reporting, in 30 seconds they can take action to reduce costs and mitigate risk to their facilities.



#### How will they use the EnergyPQA.com' System?

- Analyze enterprise level energy metrics.
- Determine and reduce total carbon footprint.
- View custom reports on usage and max demand.
- Compare energy efficiency between facilities.
- Evaluate past performance vs. future predictions.
- Improve power system reliability.



#### Facilities VP and Director Concerns:

Reducing energy costs and improving reliability of their electrical power.



#### How will they use the EnergyPQA.com' System?

- Identify the least efficient buildings and potential savings to improve them.
- Access energy usage enterprise wide using online dashboards.
- Report on current usage and demand with future predictions.
- Identify overall risk factor for power quality.
- Receive alarm emails of poor power reliability.

#### **Engineer/Technician Concerns:**

Keeping the power system up and running.



#### How will they use the EnergyPQA.com' System?

- Identify highest risk circuits that need infrastructure remediation.
- For maintenance and power quality diagnostic purposes.
- Determine overall risk factor for power quality.
- Receive email alarms on out-of-limit and power quality events.
- Determine leaks and wasted resources within the facility.

## **Enterprise Wide Benefits**

- Up to 15% savings of your electrical energy budget year after year through submetering and energy awareness alone.
- Immediate and significant cost savings by implementing even modest demand reduction.
- Reduce costly demand charges that can be as high as 50% of a facility's actual consumption.
- Prevent downtime, improve efficiency, and reduce liability. 30– 40% of all commercial downtime is power quality related.
- Grade facilities and circuits for efficiency to take meaningful action to improve enterprise energy efficiency.
- Identify facilities and circuits with the highest power factor risk to focus power quality improvements where they will have the most impact.

- Monitor sustainability and green initiatives with enterprise wide carbon footprint analysis.
- Ease of deployment, to have the system up in days vs. years.
- Quickly troubleshoot faults with automated dashboards, reporting, and diagnostic data downloadable to csv files.



### Integrates Directly with All EIG Metering Solutions Power Quality Metering Nexus<sup>®</sup> 1500+ Meter Nexus® 1450 Meter Nexus® 1272 Meter Revenue 0006387 3 Metering/ Submetering 23.4 Shark® 100S/200S Meter Shark<sup>®</sup> ST40 Meter Shark® 270 Meter MP200<sup>™</sup> Metering System Substation Metering Shark<sup>®</sup> 250 Meter Shark® 200 Meter Shark® 100 Meter Shark<sup>®</sup> 50 Meter

## EIG's Industry Leading Engineering Services Team

EIG's Engineering Services team consists of highly skilled and talented engineers with a variety of expertise in the fields of electrical engineering, software engineering, and meter engineering.

#### What Can We Do for You?

The Engineering Services team is available to work directly with you, offering world-wide support and a work schedule tailored to meet your needs. The team offers on-site commissioning and consulting services, providing system integration solutions for your specific application. They also provide flexible customer-focused training that covers all EIG solutions, and which is available through webinar or in-person, on-site, or off-site classes. The training staff are certified RCEP instructors.

- Maximize your energy monitoring investments.
- Optimize and improve uptime of your new software or hardware.
- Evaluate and mitigate power quality issues.
- Create a condition-based maintenance schedule.
- Meter recalibration and recertification.
- On-site and remote support.
- Receive hardware and software updates.
- Site supervision and certification of installations.
- Receive site staff (Engineers and Electricians) training.

#### **Commissioning Services**

When you use the Engineering Services team to commission your meters, they will verify meter installation and wiring and proper system integration. They will work with third parties to ensure cross compatibility and advise you on best practices for optimal implementation. In addition, the team can assist with troubleshooting and correcting pre-installed systems, which can include equipment not manufactured by EIG.

#### **Consulting Services**

EIG's Engineering Services team is available for remote or on-site services, master service agreements, and training. Training classes are now offered both virtually and in person:

- EIG offers free two-day training classes around the US, every year.
- If you and your team are not able to attend the free class, Engineering Services can create a custom class that meets your exact requirements and covers the EIG products you will be using. The team will provide either on-site or webinar-based training to ensure that your staff is knowledgeable about all aspects of the products.
- Instructors are RCEP (Registered Continuing Education Program) certified and all training can be certified for continuing education credits.



| Ordering Information  |   |              |  |  |  |  |
|---|---|--------------|--|--|--|--|
| Software Module   | Description   | Model Number | Details  |  |  |  |
| EnergyPQA.com <sup>*</sup> System   | Al Driven energy management<br>system (ten meter minimum)   | EnergyPQA    | Enterprise wide cloud energy management;<br>includes other listed software modules     |  |  |  |
|   | DataLink <sup>™</sup> API Feature   | DLAPI        | API for exporting EnergyPQA.com* system data   |  |  |  |
| CommunicatorPQA <sup>*</sup> 6.0 Pro<br>Application with MeterManagerPQA <sup>*</sup> | Basic Professional license seat, one<br>user; includes MeterManagerPQA*<br>software and Report Exporter | COMPQA6P     | Add automation, system comparisons, meter diagnostics, and enterprise meter management |  |  |  |
| EnergyReporterPQA <sup>™</sup> 5.0  | Billing and usage reporting software  | ERPQA5       | Energy dashboard, reporting, and billing add-on for EIG meters                         |  |  |  |
| Commissioning   | Training by RCEP instructors on all EIG solutions, available through webinar, on-site, or off-site.     |              |  |  |  |  |
| Meter Training  | Training by RCEP instructors on all EIG solutions, available through webinar, on-site, or off-site.     |              |  |  |  |  |

#### Notes:

- You must have installed the CommunicatorPQA<sup>\*</sup> Professional application with MeterManagerPQA<sup>\*</sup> software to successfully run the EnergyReporter-PQA<sup>™</sup> application. If you purchase licenses for the EnergyPQA.com<sup>\*</sup> system, you receive the CommunicatorPQA<sup>\*</sup>, MeterManagerPQA<sup>\*</sup>, and EnergyReporter-porterPQA<sup>™</sup> software as a bundled offering.
- Meters used in the EnergyPQA.com<sup>®</sup> system must support Ethernet communication.



## Meet the EIG Team

Electro Industries/GaugeTech (EIG) strives every day to be the best and most reliable provider for power and energy metering, power quality, and energy management. EIG ensures success with our dependable metering technology, our advanced cloud software, and our world-wide field engineering support. We have a long history of innovation, including hardware, software, artificial intelligence, IOT, and advanced reporting. Contact our sales engineering team at sales@electroind.com or 516-334-0870 for help with building a solution for your specific application.

## Trademarks

Nexus<sup>\*</sup>, Shark<sup>\*</sup>, CommunicatorPQA<sup>\*</sup>, EnergyPQA.com<sup>\*</sup>, EnergyPQA<sup>\*</sup>, and MeterManagerPQA<sup>\*</sup> are registered trademarks of Electro Industries/GaugeTech. The distinctive shapes, styles and overall appearance of the Nexus<sup>\*</sup>1500/ 1500 + meter and the Shark<sup>\*</sup> meters are trademarks of Electro Industries/ GaugeTech. EnergyReporterPQA<sup>™</sup> is a trademark of Electro Industries/ GaugeTech.





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