

# AI Driven Energy Management for Commercial Facilities

Maximize *Energy Efficiency* and Improve *Electrical Reliability*

## Application Guide



- Identify the Most Energy Wasteful Facilities and Circuits to Maximize Energy Efficiency Improvements
- Reduce Costs with AI-based Predictions
- Drive Energy Conservation Behavior from Tenants
- Automatically Grade Facilities and Circuits Using Deep Power Quality Insights to Improve Electrical Reliability

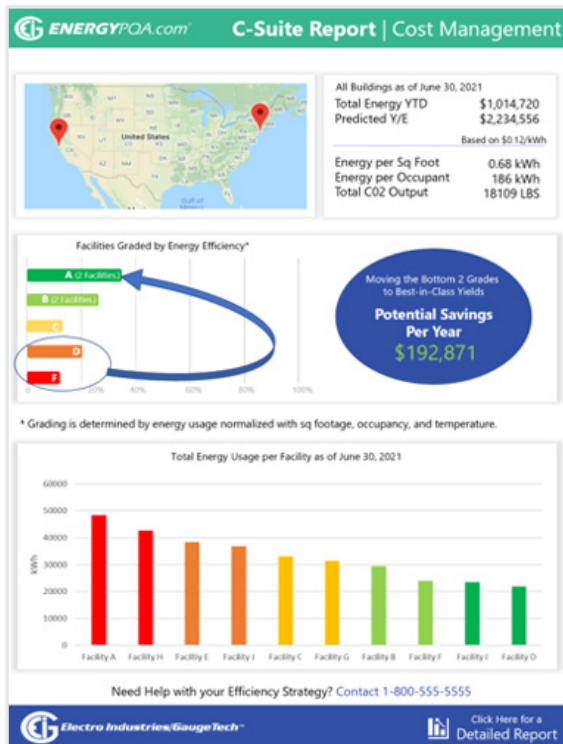
## Identify Wasteful Facilities and Circuits to Improve Energy Efficiency

The U.S. Department of Energy estimates typical commercial buildings waste 20% of energy consumed. Poorly performing buildings use up to seven times more energy than highly energy efficient buildings. Increasing energy efficiency is not only beneficial for a building's bottom line but it also helps to reduce a facility's carbon footprint.

EnergyPQA.com® transforms traditional energy management by identifying the most energy wasteful facilities and circuits to maximize energy efficiency improvements.

- Automatically grade facilities and circuits for energy efficiency using smart analytics.
- Identify least efficient facilities and the potential savings from improving them.
- Focus on facility circuits most in need of improvement.

Since energy efficient buildings can consume up to 85% less power, identifying poorly performing facilities and circuits is essential to reduce energy use and costs.



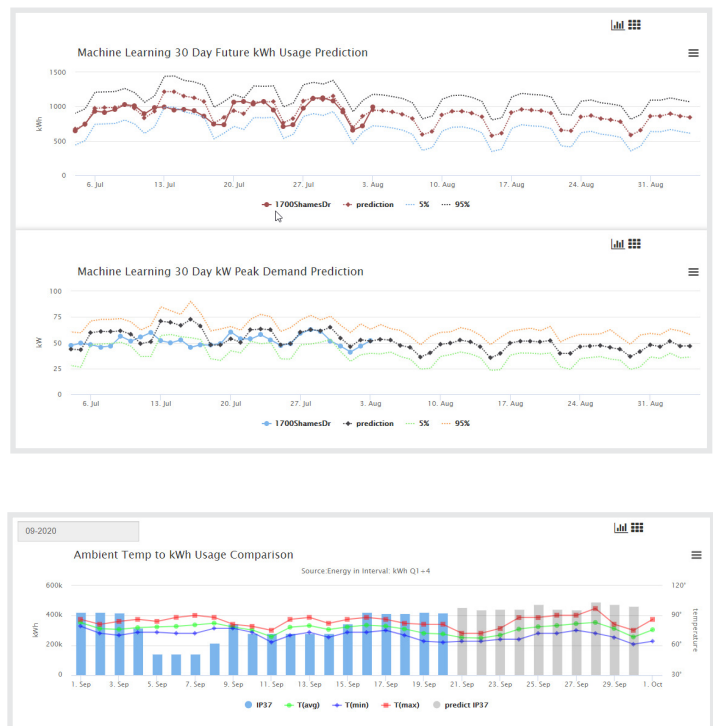
[View Facilities Graded for Energy Efficiency](#)

## Reduce Costs with AI-based Predictions

The EnergyPQA.com® energy management system's AI-based energy predictions provide insights into building energy trends into the future. By looking at future predictions, a facility manager can then be proactive to make sure that energy reduction programs are successful. The system uses historical energy readings and future weather forecasts to provide usage and demand before they occur, at all metered points.

- Accurately predict demand and energy usage into the future with advanced AI and machine learning.
- Take action on peak demand predictions in advance of penalty.
- View energy dashboards that detail energy usage and demand across facility areas and provide insightful predictive analysis.

The system emails notifications of new predicted peak demand up to three days in advance. Since demand charges can be as high as 50% of a facility's actual energy bill, this information can yield significant savings. Use the EnergyPQA.com® energy management system's predictive energy usage dashboards to judge the success of demand mitigation efforts.

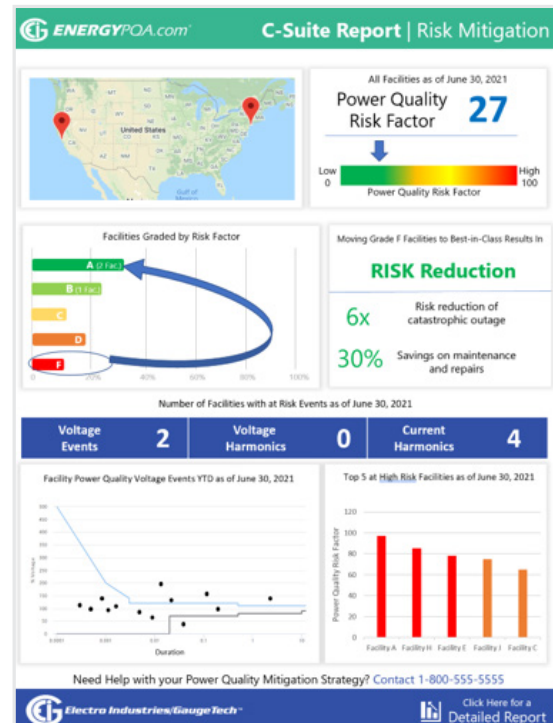


[Use Artificial Intelligence to Predict Energy Usage into the Future](#)

## Grade Facilities and Circuits to Improve Electrical Reliability

Industry studies show that up to 40% of all downtime is power quality related and that 80% of these issues originate within the facility. The EnergyPQA.com® energy management system provides comprehensive power quality analysis on all metered points.

- Automatically grade facilities on best to worst power quality risk.
- Identify specific circuits in worst facilities to provide simple meaningful actions to improve reliability and safety of the power system.
- Gain deep insights into all aspects of the facility's voltage reliability and power quality with extensive dashboards and customizable reporting.
- Easily view power quality waveforms, voltage sags and swells, current faults, THD, power factor, and limit alarms.



View Facilities Graded for Power Quality

## Drive Energy Conservation Behavior from Tenants

Submetering produces accurate cost allocation that results in energy savings of up to 18%. Use EIG meters and the EnergyPQA.com® energy management system to provide energy awareness and change the mindset of tenants and energy users. Install meters at all needed locations to conserve energy through actual energy usage billing rather than square footage estimates.





# Typical Bill of Materials

## Cloud-Based Energy Management Solution

**EnergyPQA.com®** - AI Driven Energy Management System, providing energy analytics and predictions, reducing costs, and improving power system reliability

**Ordering Part #:** **ENERGYPQA-1Y**

**Learn More:** <https://www.electroind.com/products/energypqa-com-energy-management-system/>



## Critical Load Point

**Nexus® 1500+** - Advanced Power Quality Meter

Example Installation: Utility Entry Points, Critical Loads, High Power Sensitivity Points

**Ordering Part #:** **Nexus1500+-D2-60-20-V3-X-X-X-X**

**Learn More:**

<https://www.electroind.com/products/nexus-1500-power-quality-meter-with-phasor-measurement-unit/>



## Large Loads (400 A or more)

**Shark® 250** - Cyber Secure Power and Energy Meter

Example Installation: Typical Building Loads, Substations, Control Panels

**Ordering Part #:** **Shark250-60-10-V2-D2-INP100S-X-X**

**Learn More:** <https://www.electroind.com/products/shark-250-power-meter/>



## BACnet Capable Meter

**Shark® 100B** - Power and Energy Meter with Native BACnet/IP

Example Installation: To fit an existing BACnet application

**Ordering Part #:** **Shark100B-60-10-D2-X**

**Learn More:** <https://www.electroind.com/products/shark-100b-bacnet-ip-power-meter/>



## Smaller Loads (200 A or more)

**MP200™ Multipoint Metering System** - 8 Three Phase Input Meters

Example Installation: Smaller Panel Boards, High-density Circuits

**Ordering Part #:** **MP200-Y-60-10-V2-WIFI-MDSN**

**Learn More:** <https://www.electroind.com/products/shark-mp200-multi-point-energy-meter/>



## Engineering Services

Contact EIG's highly experienced engineers, with a variety of skills in the fields of electrical engineering, software engineering, and meter engineering, to assist in the design,

commissioning, start-up verification, and certification of installations. Our team will help you get your project up and running, and ensure its success.



### Contact EIG at:

Email: [sales@electroind.com](mailto:sales@electroind.com)

Telephone: 516-334-0870

Website: [www.electroind.com](http://www.electroind.com)

### Application page link:

[www.electroind.com/energy-management-for-commercial-buildings/](http://www.electroind.com/energy-management-for-commercial-buildings/)

