

# AI Driven Energy Management for Multi-unit Residential Buildings

Maximize *Energy Efficiency*, Reduce *Energy Consumption*, and Lower *Energy Costs*

## Application Guide



- Drive Energy Conservation Behavior from Tenants
- Automatically Bill Tenants for Their Energy Usage
- Identify and Compare Common Area Energy Costs
- Identify the Most Energy Wasteful Buildings and Circuits to Maximize Energy Efficiency Improvements
- Reduce Costs with AI-based Predictions
- Manage All Commodity Usage

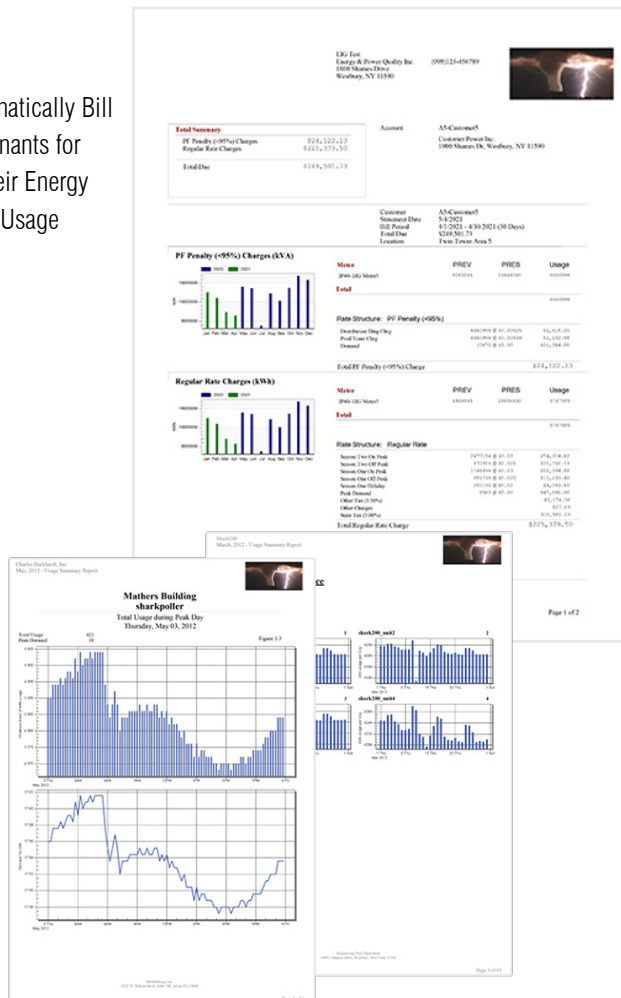
## Drive Energy Conservation Behavior from Tenants

Submetering of tenants is one of the first recommendations for reducing multi-unit residential building energy costs. This action alone has been shown to result in energy savings of up to 18%.

- Bill tenants for their actual energy usage rather than relying on square footage billing.
- Ensure fairness in billing and reward energy conservation.
- Change tenant mindset using EIG meters and the EnergyPQA.com® energy management system to provide energy usage awareness.
- Automatically generate tenant billing and executive summary reports.

When tenants see how their usage directly affects their bills, they have motivation to reduce their energy use. This results in both immediate and long-term savings.

## Automatically Bill Tenants for Their Energy Usage



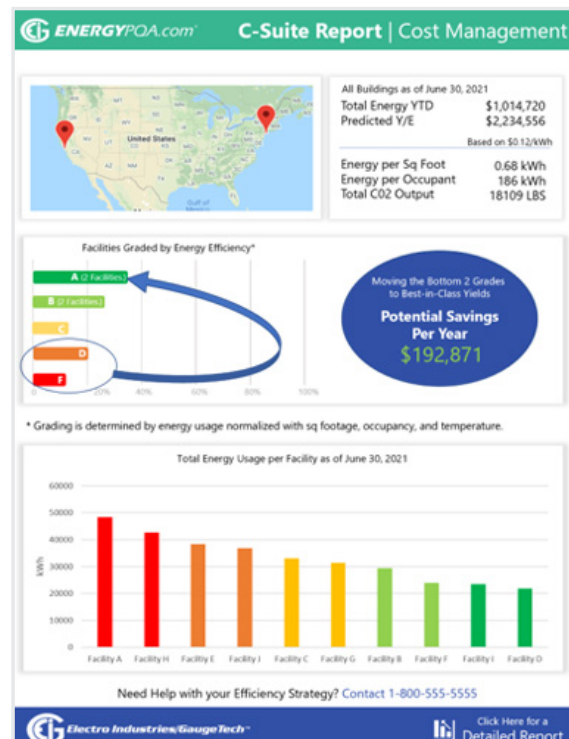
## Generate Executive Summary Energy Usage Reports

## Identify Wasteful Buildings and Circuits to Improve Energy Efficiency

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 building's carbon footprint and enables it to meet statutory energy reduction guidelines. EnergyPQA.com\* transforms traditional energy management by identifying the most energy wasteful buildings and circuits to maximize energy efficiency improvements.

- Automatically grade buildings and circuits for energy efficiency using smart analytics.
- Identify least efficient buildings and the potential savings from improving them.
- Focus on building circuits most in need of improvement.
- Determine and compare common area energy usage and examine ways to reduce it.
- Calculate PF over a month to stay within regulatory guidelines.

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

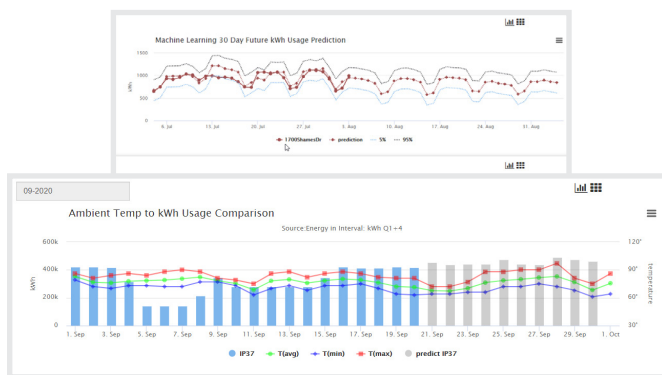


View Buildings Graded for Energy Efficiency

## 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 building 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 building areas and provide insightful predictive analysis.

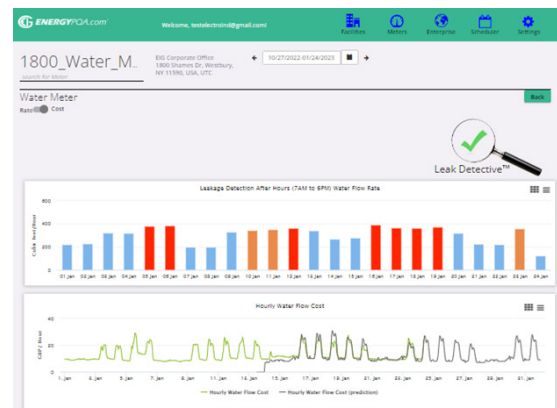


Use Artificial Intelligence to Predict Energy Usage into the Future

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® system's predictive energy usage dashboards to judge the success of demand mitigation efforts.

## Manage All Commodity Usage

The EnergyPQA.com® system allows you to track all commodity usage in one place, eliminating the need for discrete systems for water, air, gas, electric, and steam (W.A.G.E.S.) usage. View detailed usage and commodity cost dashboards. Trend commodity usage within a building and compare use between buildings. With the unique Leak Detective™ feature, be alerted to air and water leaks, allowing timely action to save resources and money. Generate reports for all W.A.G.E.S. commodity usage.



W.A.G.E.S. Dashboard

## Making Multi-unit Residential Building's Energy Usage More Efficient and Cost-Effective





# Typical Bill of Materials

## Cloud-Based Energy Management Solution

**EnergyPQA.com®** - AI Driven Energy Management System, providing tenant billing, common area cost allocation, future predictions, and power quality

**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/>



## Submetering

**ST40** - Compact DIN Rail Mounted Energy and Power Quality Meter

Example Installation: Tenant Submetering, Power Quality Metering, Energy Management

**Ordering Part #:** **ST40-60-10-V5-INP10**

**Learn More:** <https://www.electroind.com/products/st40-compact-din-rail-energy-meter-with-power-quality/>



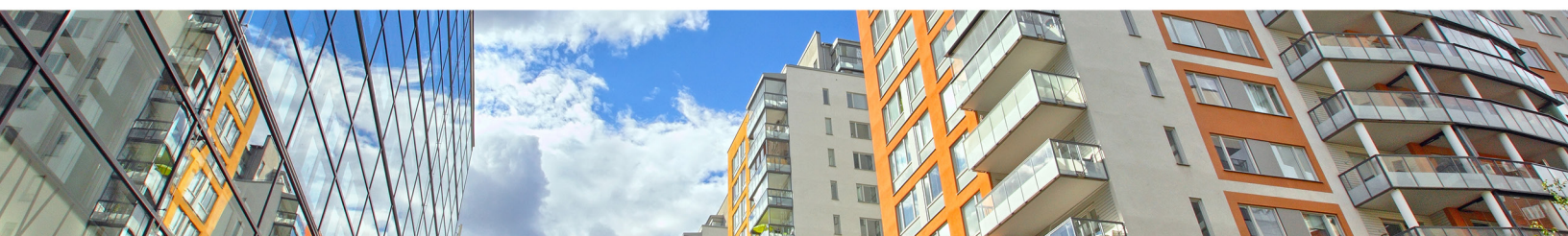
## High-density Circuits

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

Example Installation: Smaller Panel Boards, Tenant Submetering, LEED Projects

**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-multi-use-residential/](http://www.electroind.com/energy-management-for-multi-use-residential/)

