# Smart Electricity Optimizer

SAVE ELECTRICITY

SAVE WATER

## Energy Technologies


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MADE IN USA

# THE PROBLEM:

**You ARE paying for electricity you are not using.**

**3-in-1 Technology Saves You Money**

# $AVE UP TO 35% ON YOUR MONTHLY ELECTRICITY BILL

# The Real Cost of Ignoring These Issues:

- **Utility surcharges (power factor penalties) from your electricity provider.**
- **Motors and transformers running 50–86°F hotter than designed, cutting lifespan in half.**
- **Neutral conductor overloading — a documented fire risk in commercial buildings.**
- **Premature failure of capacitors, drives, and sensitive electronic equipment.**
- **5–15% additional energy consumption from harmonic losses alone.**
- **Voltage instability and unexplained equipment shutdowns.**

# Demand for Electricity & Harmonic Distortion

## The Modern Grid Faces Growing Challenges

Rising electricity demand from data centers, EV charging, and modern electrical equipment.

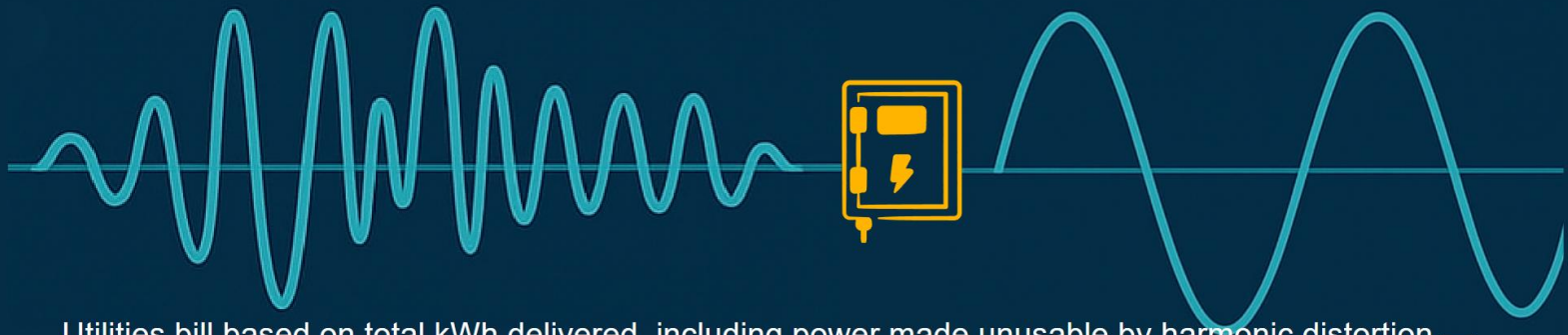
Harmonic distortion caused by nonlinear loads such as VFDs, UPS systems, servers, and LED lighting.

Harmonics impact grid efficiency, equipment reliability, and can lead to potential damage.

Increasing need for advanced power quality solutions to maintain efficient and reliable operations.

# The 1st Problem the Smart Energy Optimizer Addresses

Electric infrastructure is becoming increasingly burdened and inefficient as harmonic distortion enters building electrical systems. This results in property owners paying for electricity that cannot be fully used.



Utilities bill based on total kWh delivered, including power made unusable by harmonic distortion — reducing effective usable electricity inside the building.

Electricity costs are also driven by time-of-use, peak demand, and demand charges, meaning power quality inefficiencies directly increase operating expenses.

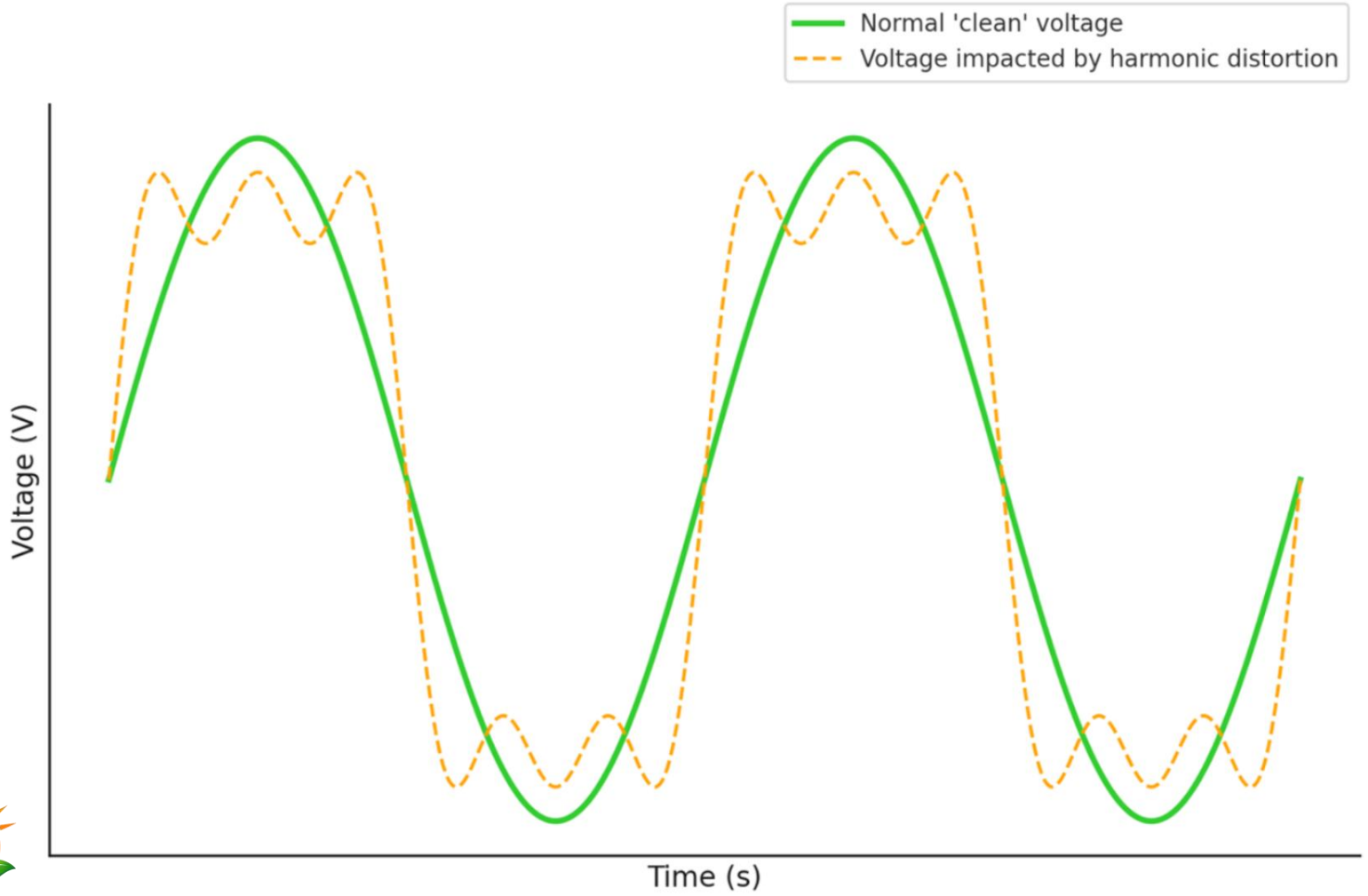
**Result:** Growing need for advanced power quality solutions to improve usable energy, reduce costs, and enhance electrical system performance.

# Electricity Optimizer — Three Problems, One Device

**The Electricity Optimizer Is A Commercial-Grade Device That Simultaneously Eliminates Harmonic Distortion, Corrects Power Factor, And Provides Enterprise-Level Surge Protection.**

## Total Harmonic Distortion (THD) Elimination

- → Filters harmonic frequencies introduced by VFDs, LEDs, computers, and non-linear loads
- → Reduces motor and transformer operating temperatures — extending equipment life
- → Prevents neutral conductor overloading and associated fire risk
- → Reduces energy waste from harmonic losses throughout the distribution system
- → Improves reliability of sensitive electronic and control systems
- → Brings facilities into IEEE 519 harmonic compliance


Normal 'clean' voltage
Voltage impacted by harmonic distortion
Voltage (V)
Time (s)

# Electricity Optimizer — Three Problems, One Device

**The Electricity Is A Commercial-Grade Device That Simultaneously Eliminates Harmonic Distortion, Corrects Power Factor, And Provides Enterprise-level Surge Protection.**

## Power Factor Correction

- → Automatically corrects power factor toward ideal 1.0
- → Eliminates reactive power waste from motors, HVAC, and inductive loads
- → Removes or dramatically reduces utility power factor penalty charges
- → Reduces current draw — lowering kWh consumption and demand charges
- → Self-healing capacitor technology for long-term reliability
- → Available in two models —single-phase and 3-phase commercial/industrial

# Power Factor Correction Solution

## How Power Factor Correction Improves Electrical System efficiency

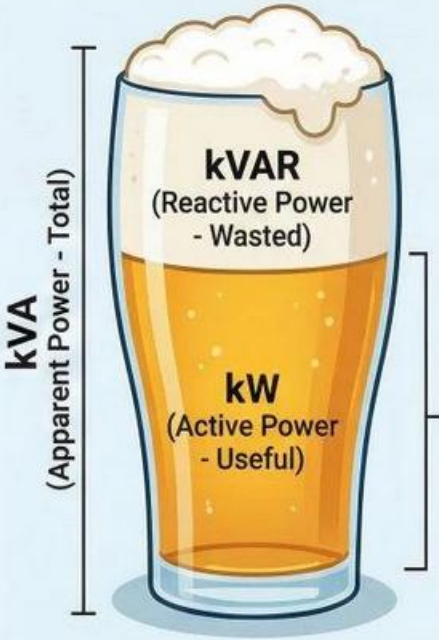

Power factor correction reduces reactive power and improves system efficiency.

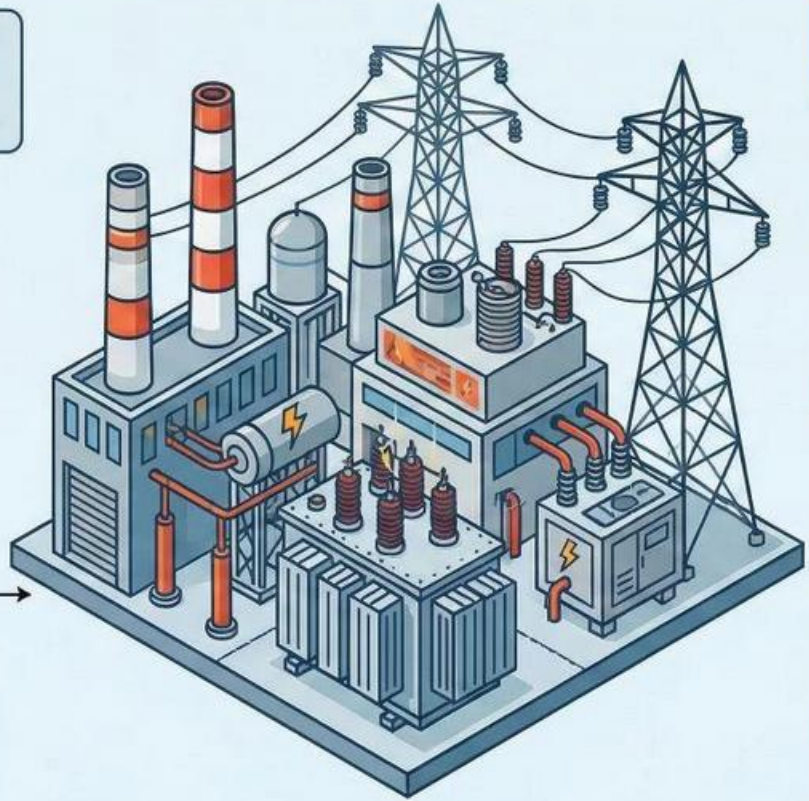
Harmonic mitigation helps protect equipment and extend asset life.

Optimized power quality lowers demand charges and operating costs.

# Do You Need Power Factor Correction?

Low power factor is a costly inefficiency, paying for wasted "foam" instead of useful "beer".



## Common Signs of Poor Power Factor

- Electricity bill includes reactive power or power factor penalties.
- Approaching or exceeding your kVA capacity.
- Machinery or motors cause voltage drops or overheating.
- High inductive loads (motors, compressors, HVAC, pumps) are present onsite.

**Power Factor Correction reduces waste, lowers bills, and increases system capacity.**

# Electricity Optimizer — Three Problems, One Device

**The Electricity Is A Commercial-Grade Device That Simultaneously Eliminates Harmonic Distortion, Corrects Power Factor, And Provides Enterprise-level Surge Protection.**

## Surge Protection

- → **Up to 600V AC with 5,000-joule surge capacity**
- → **Protects motors, drives, HVAC equipment, and sensitive electronics**
- → **Self-healing capacitor design maintains protection after surge events**
- → **Pressure-sensitive safety mechanism prevents thermal runaway**
- → **60,000-hour rated lifespan — built for decades of commercial duty**

# Our Smart Electric Optimizer Technology

**Increases Electrical Efficiency, Lowers Energy Costs By Up To 35%, And Extends The Lifespan Of Motors And Electrical Equipment**

- **HIGH QUALITY: Self healing capacitors, harmonic correction, and surge protection components designed for industrial-grade performance.**
- **INSTALLATION LOCATIONS: Electrical panel, subpanel, and motor load circuits.**
- **CERTIFICATIONS: UL and CUL.**
- **TYPES: Single-phase and Three-phase configurations available.**
- **SIMPLE INSTALLATION: Approximately 60 minutes per installation location.**
- **WARRANTY: 10 years (25 years life expectancy).**
- **MANUFACTURING: Made in the USA.**

# Optimizer Technology Introduced in 2005

## Tens Of Thousands Of Optimizers Deployed By Oil And Gas Producers

- 160,000+ Installs By Over 200 Brands.
- Big Brands Like McDonalds, Subway, Hampton Inns, Conoco-Phillips, AT&T Stadium, Amway Center, And More
- Installs in 5 of the Top 100 of Fortune 500
- Made in the USA

# Trusted Technology

# Two-Layer Energy Optimization Strategy

## We Address Energy Performance At Two Distinct Points In Your Electrical System To Reduce Total Cost, Improve Efficiency, And Enhance Equipment Performance.

### Utility-Side Optimization (At the Meter)

**This solution focuses on improving the quality of electricity entering the building. By harmonizing incoming power and reducing harmonic distortion and waveform irregularities, the system increases the usable portion of delivered electricity and helps reduce the total kWh measured and billed. It also stabilizes voltage conditions before power enters the facility, creating a cleaner electrical baseline that improves downstream system performance and overall efficiency.**

### Behind-the-Meter Optimization (Inside the Building)

**This solution optimizes electricity based on the specific needs of facility loads. Power factor correction improves electrical efficiency and reduces system losses, while THD reduction helps protect motors, drives, and sensitive electronics. Integrated surge protection up to 5000 joules safeguards equipment from transient voltage spikes. Together, these improvements help reduce peak, demand, and time-of-use charges, extend the lifespan of electrical infrastructure, and enhance overall system reliability and operational stability.**

## Installation Inside Panel Box


## 3 Phase and Single Installation Outside Panel Box

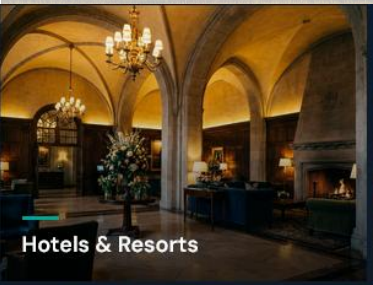
# Other Installations

# IDEAL APPLICATIONS

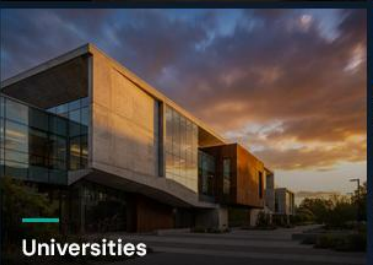













# Thank You For Your Interest!

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