PURE ENERGY STREAM

OPTIMIZE POWER.
REDUCE COSTS.
BUILD YOUR ESG FOUNDATION.

Energy Efficiency: The Foundation for ROI, Sustainability, and Resilience.

Energy Conditioning Units

www.pureenergystream.com

OUR STORY



- Founded in 2023 with a mission to build one of the world's most advanced infrastructure energy management systems.
- Built on an earlier proof of concept at Honua Kai Resort in Maui, where our prototype demonstrated strong gains in power quality, efficiency, and cost savings.
- Introduced EcoMAXIM, a whole-facility power management hardware that reduces demand, improves power quality, and delivers real-time performance visibility.
- Joined the Los Angeles Cleantech Incubator (LACI) ecosystem, strengthening alignment with LADWP as a portfolio company for the reengineering to support certification, domestic sourcing, and scalable deployment.
- USGBC Net Zero Accelerator portfolio company positioning PES at the intersection of infrastructure resilience, sustainability, and measurable economic value.

LACI

LA DWP Los Angeles Department of Water & Power

U.S. GREEN BUILDING COUNCIL CALIFORNIA NET ZERO ACCELERATOR

THE PROBLEM: ELECTRICAL INEFFICIENCY

- **Reactive power** draws current that does no useful work, your utility bills for it anyway, through demand charges and power factor penalties
- **Harmonic distortion** from VFDs, LEDs, and electronic loads overheats transformers and motor windings, accelerating wear and triggering nuisance trips
- **Voltage imbalance** forces motors to run hot and inefficient, compounding energy waste and shortening equipment life

These conditions worsen with every EV charger, VFD, and smart control system you add.

The result: inflated bills, accelerating equipment wear, and an ESG liability you haven't quantified yet.

OPERATIONAL SYMPTOMS THAT SIGNAL ENERGY & EMISSIONS WASTE

You may have dirty power if you notice:

- Flickering or dimming lights
- Equipment resetting, stalling, or failing
- Electrical rooms running hot
- Breakers tripping unexpectedly
- Rising energy bills without usage growth
- Premature failure of LEDs and electronics
- Motors running loud, hot, or inefficiently
- Connectivity and security systems dropping offline
- Volatile or rising demand charges
- Elevator Failure

These symptoms indicate that electricity is being delivered inefficiently — forcing systems to draw more kilowatts than necessary and generating excess heat instead of useful work.

ENERGY CONDITIONING UNITS

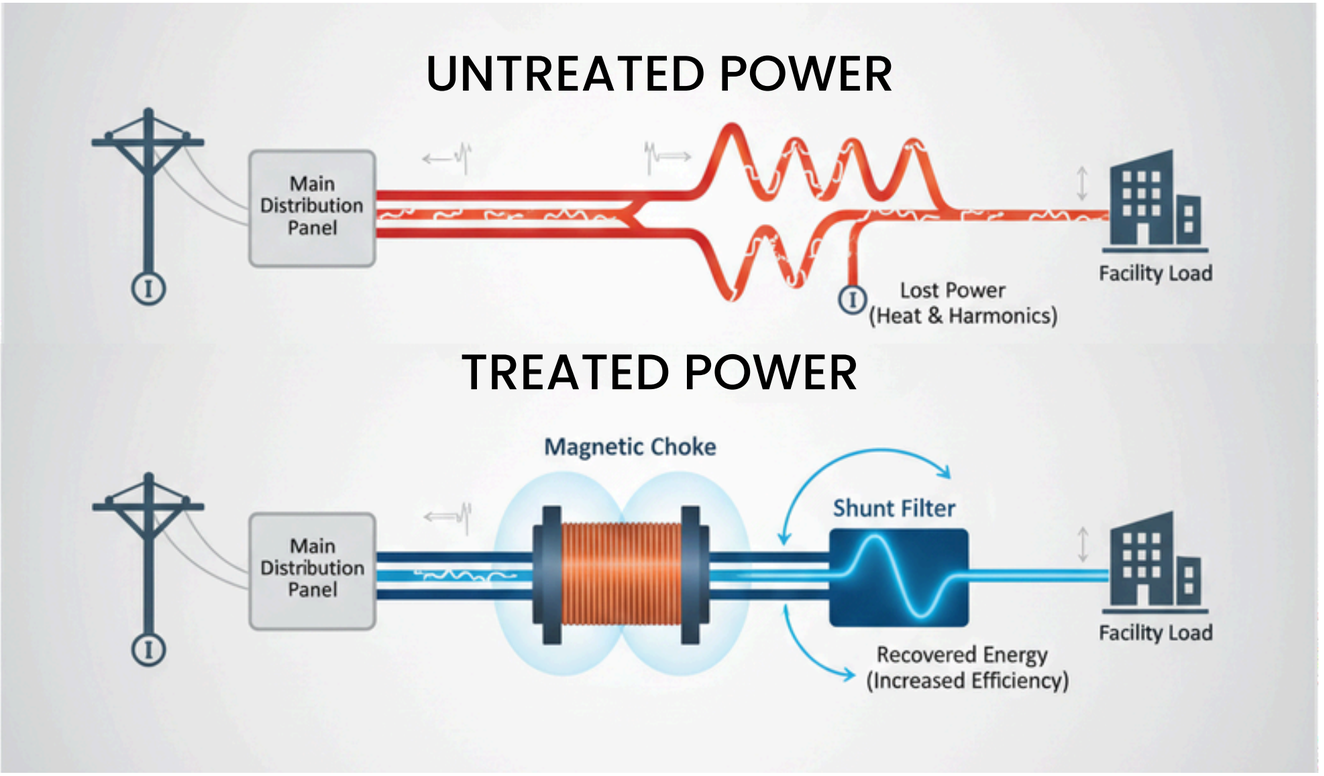
EC Units address every major category of electrical inefficiency simultaneously, at the circuit level. Eight core functions. One installation.

- **Corrects power factor** - eliminates reactive power and reduces demand charges
- **Filters harmonic distortion** - protects equipment from overheating and nuisance trips
- **Stabilizes three-phase voltage** - motors run at rated efficiency, cooler and longer
- **Captures and recycles transient energy** - spikes up to 50,000V absorbed and returned as usable power
- **Balances load across all three phases** - reduces stress on breakers, switchgear, and transformers
- **Reduces total current draw** - lower RMS current means less heat throughout the distribution system
- **Protects sensitive electronics** - BAS, IT, security, and control systems receive clean, stable power
- **Generates auditable performance data** - verified kWh, kVAr, and kW demand reductions for ESG and incentive reporting



Outcome: Improved power quality, reduced equipment stress, and sustained energy savings.

HOW EC UNITS WORK



Technical Summary

EC Units are a three-phase, solid-state, AC shunt device intended for permanent parallel connection on inductive distribution circuits at the load side of motor starter contactors or at branch panels serving motors, HVAC compressors, pumps, refrigeration equipment, magnetically ballasted lighting, and other inductive apparatus. The core topology is a patented A.C. power conditioning circuit comprising multiple ferrite-core wrap-around magnetic choke pairs magnetically coupling each phase conductor pair (L1-L2, L2-L3, L1-L3), in series and parallel combinations with power-factor correction capacitors and metal-oxide varistor (MOV) surge suppression elements arranged line-to-line, line-to-neutral, and line-to-ground.

When energized, the device co-generates leading reactive current and induces controlled, cross-phase magnetic coupling, resulting in (a) distributed, resonance-free power factor correction, (b) reduction in line-side RMS current and peak (crest) current, (c) inter-phase voltage and current balancing, (d) attenuation of backward-rotating harmonic components (notably 5th and 7th), and (e) transient surge absorption with partial energy conversion back into the system. The USES system is designed such that its internal resonant frequencies are detuned from plant harmonic spectra and from the service transformer–capacitor resonance points, thereby avoiding the RLC resonance issues typical of conventional fixed or switched PF capacitor banks.

CASE STUDY – KUAKINI MEDICAL CENTER

Five EC Units were installed to mitigate harmful electrical anomalies and reduce kilowatt hour demand.

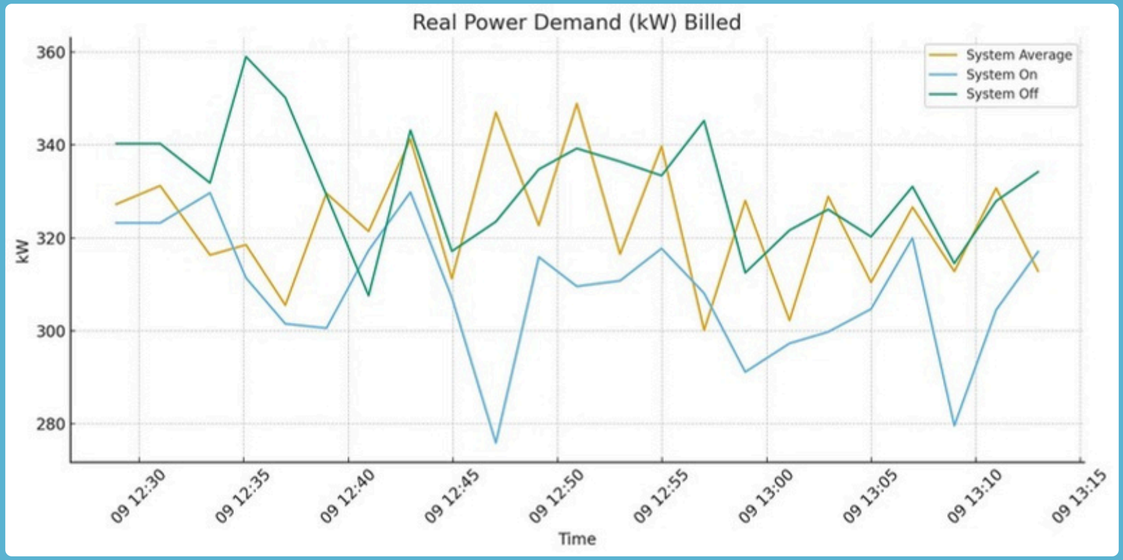
25.89
kWh Total Demand Drop

45-minute test with units disconnected every 2 minutes.

2.77
Volts per phase increase

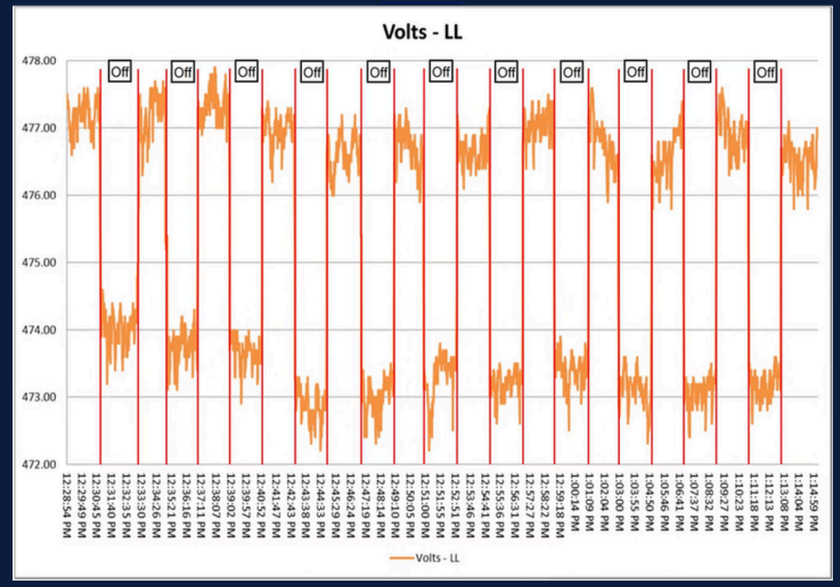
Real-Time Power Demand Analysis

The graph shows demand fluctuations during the test, a clear pattern that demonstrates the direct impact of EC Units on reducing billed kilowatts.



Line-to-Line Voltage Analysis

The graph shows a consistent 2.77-volt improvement per phase, illustrating how EC Units deliver stable, balanced voltage across all three phases -eliminating fluctuations that can damage sensitive medical equipment.

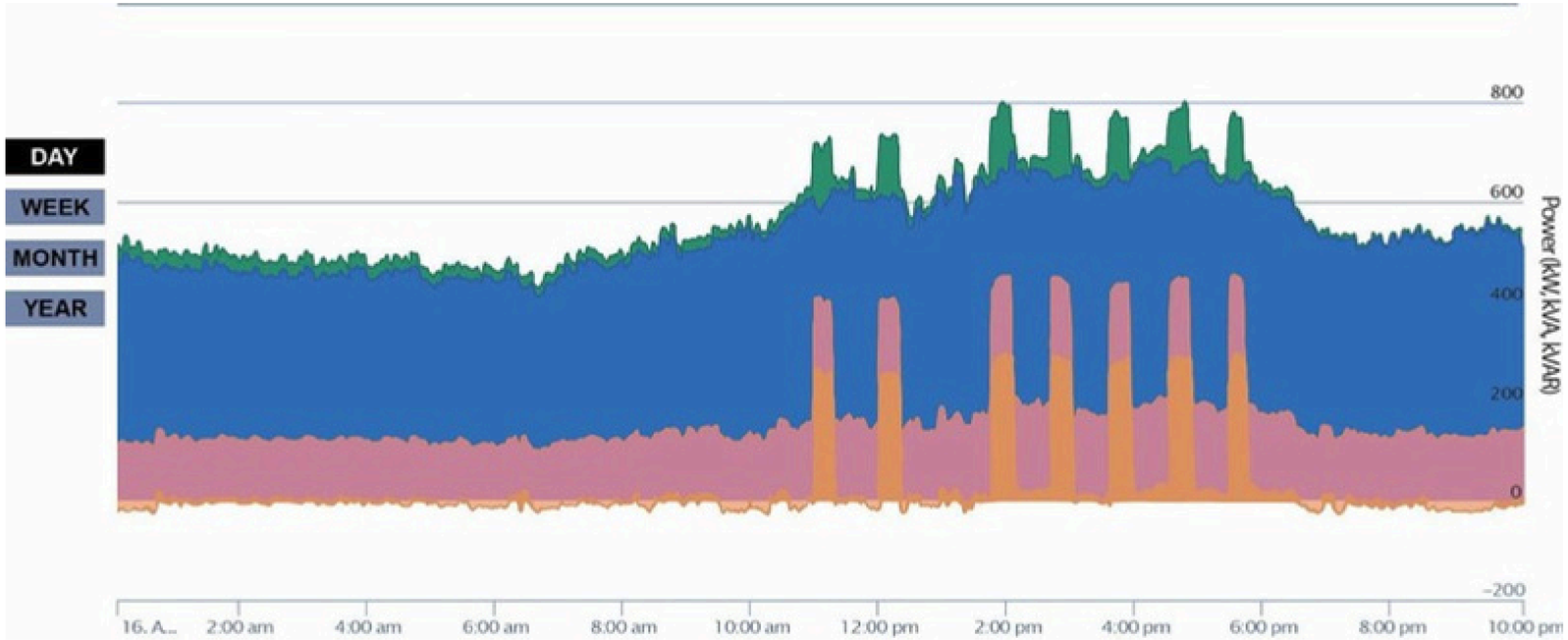


CASE STUDY – ECOMAXIM

Honua Kai – Hokulani Tower and Konea Tower

8 month ROI
Avg Energy Saving: 14,385

11 month ROI
Avg Energy Saving: 11,907



This is an on/off test demonstration of our paid Pilot in Maui, Hawaii at Honua Kai Resort & Spa located at:
130 Kai Malina Pkwy, Lahaina, HI 9676.
This test shows how the EcoMAXIM system works. While engaged, the EcoMAXIM maintains steady Voltage, reduced reactive Amperage and reduced kiloWatts. When disengaged, Voltage destabilizes, power quality worsens, and kiloWatts increase.

Legend: Green = KVA, total incoming power
Blue = kiloWatts, real power consumption
Mauve = KVAR, reactive or waste power
Orange = Delta KVAR, an algorithm for the monitoring system to engage capacitors.

** The below does not account for the 2% savings from Power Factor Correction by Hawaii Energy Co. (HECO)*
** The resort was able to add load to the meter by adding an additional 75 luxury appartments to its resort.*

REDUCE KWH DEMAND AND KWH CONSUMPTION

What It Does:

EC Units perform **transient energy conversion** through the surge protections self-healing magnetic chokes - energy above the operational voltage is absorbed, re-constituted, and returned to the facility as usable safe power.

Why It Matters:

- **Power Generation** via the proprietary wrap-around magnetic chokes: Voltage and current are generated from each phase and injected into adjacent phases as usable power, reducing kW demand and kW consumption



What It Eliminates:

- Eliminates excess reactive currents (kVAr) and harmonic currents that inflate billed consumption and cause equipment losses.
- Eliminates phase imbalance and associated wasted magnetic flux, and reduces instantaneous peak demand by injecting usable power between phases.

Replaces:

Energy Management Systems, and Timers

POWER FACTOR CORRECTION

What It Does:

EC Units reduce reactive power (kVAr) circulating in the circuit, directly lowering the apparent power (kVA) the utility must supply. Less reactive power means lower current draw — and lower utility costs.

Why It Matters:

- **Eliminates demand charge inflation** and power factor penalties from your utility bill
- **Reduces heat** in conductors, motors, and transformers - extending asset service life
- **Lower maintenance spend** and deferred capital replacement across the distribution system



What It Eliminates:

- Non-productive reactive power circulating through conductors without doing useful work
- Demand charge penalties triggered by poor power factor ratios
- Copper Losses, due to heat

Replaces:

Capacitor Banks

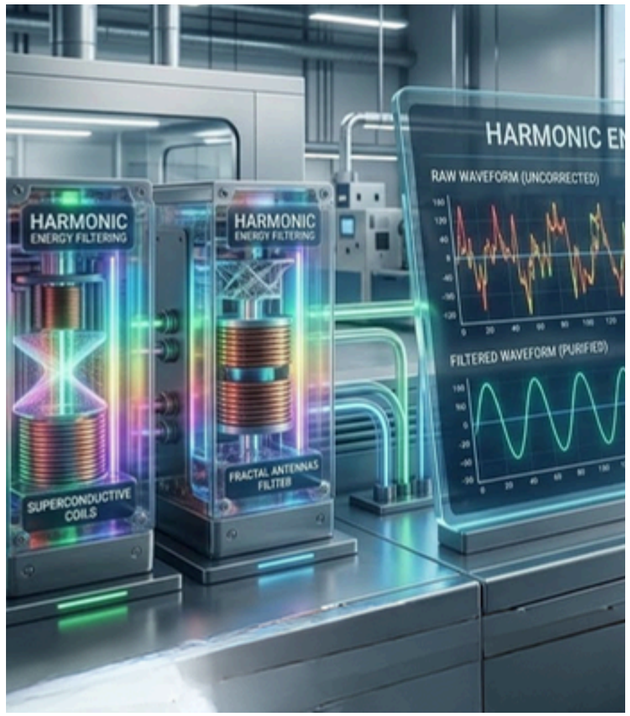
HARMONIC FILTERING

What It Does:

EC Units' 60 Hz bandpass technology filters the distortion that modern electronic loads (VFDs, LED drivers, computers, and other non-linear equipment) introduce into voltage and current waveforms, restoring a clean sine wave to the circuit.

Why It Matters:

- **Eliminates overheating** in transformer cores and motor windings — the leading cause of premature equipment failure
- **Stops nuisance tripping** in sensitive electronics and overcurrent protection devices
- **Protects meters and control systems** from misreading caused by distorted waveforms
- **Prevents resonance conditions** that can blow fuses or degrade capacitor banks



What It Eliminates:

- Harmonic distortion generated by VFDs, LEDs, switching power supplies, and other non-linear loads
- Inflated current draw from harmonic-caused waveform distortion

Replaces:

Harmonic Filters and Electricity Filters

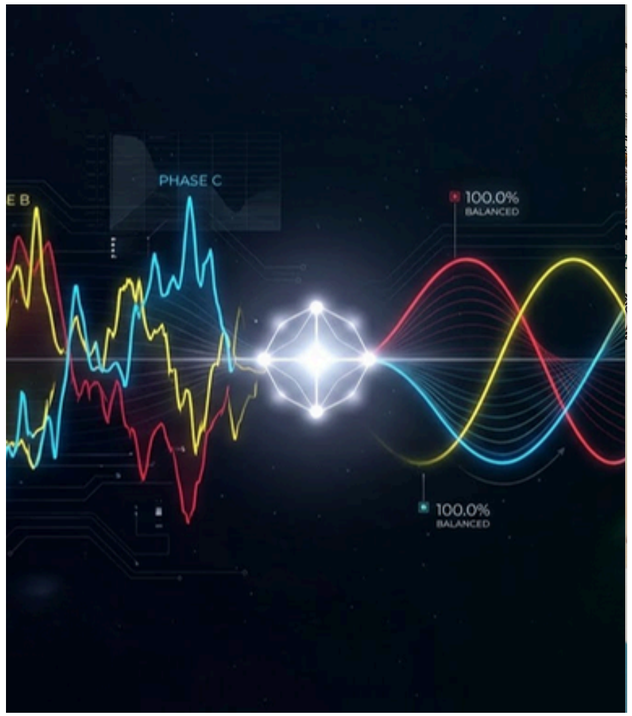
THREE-PHASE VOLTAGE STABILIZATION

What It Does:

EC Units balance voltage across all three phases and creates a low-impedance, "stiff" circuit that maintains stable voltage regardless of load fluctuations. Motors operate at or near rated efficiency under all load conditions.

Why It Matters:

- **Cooler, more efficient motor operation** - measurably lower energy consumption per cycle
- **Reduced energy wasted as heat** throughout the distribution system
- **More resilient electrical infrastructure** - better capacity to absorb transient and load-switching events
- **Quieter HVAC operation** and fewer vibration-related mechanical failures



What It Eliminates:

- Voltage imbalance that forces motors to draw excess current and run at elevated temperatures
- Phase stress from uneven load distribution across AB, AC, and BC

Replaces:

Voltage Regulator
Voltage Stabilizer

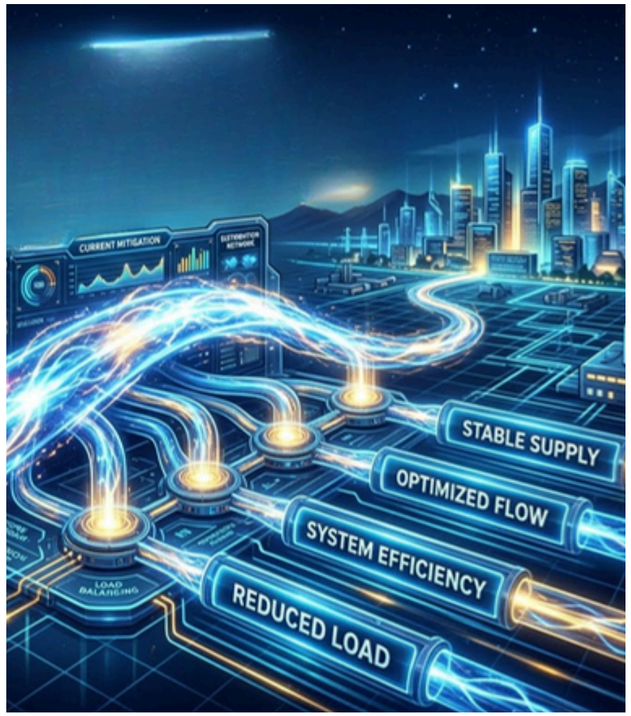
LOAD BALANCING & CURRENT REDUCTION

What It Does:

EC Units reduce total current flow through the distribution system and balances loads across all three phases, minimizing thermal and mechanical stress on overcurrent protection devices and distribution equipment.

Why It Matters:

- **Fewer nuisance breaker trips** - less operational disruption and maintenance call response
- **Lower ambient temperatures** in electrical rooms and panel enclosures
- **Extended service life** for switchgear, transformers, and protective devices - deferring capital costs



What It Eliminates:

- Elevated RMS current driven by reactive power and harmonic distortion
- Phase imbalance that stresses breakers, bus bars, and distribution infrastructure

Replaces:

Voltage Regulator
Voltage Stabilizer

SURGE PROTECTION

What It Does:

EC Units capture transient voltage events - up to 50,000 volts and 200 kVA per phase - before they reach sensitive equipment. Advanced energy conditioning recycles that transient energy back into the circuit as usable power rather than dissipating it as heat or noise.

Why It Matters:

- **Stable, transient-free power to lighting** - longer LED life, fewer replacements, reduced maintenance labor
- **Protected IT infrastructure**, building automation systems, and security controls
- **Improved operational uptime** and fewer unplanned system resets



What It Eliminates:

- Voltage spikes and transient events traveling through panels to connected equipment
- Premature failure of LEDs, electronics, and control systems caused by repetitive transient stress

Replaces:

Surge Protectors, Voltage Regulators, and Lightning Arrestors

WHY POWER QUALITY DIRECTLY IMPACTS ESG OUTCOMES

Dirty power increases real power demand (kWh).

Higher kWh demand leads to:

- Higher kWh consumption
- Higher Scope 2 emissions
- Less accurate sustainability reporting
- Increased carbon liability

Energy Conditioning Units correct this by:

- **Reducing real kiloWatt hour demand (UL Specs)**
- **Recycling the kVAr**
- **Balancing & optimizing Voltage**
- **Protects against harmful power surges**
- **Protects against negative line harmonics**
- **Reducing maintenance & repair costs**
- **Extending the life of all electrical equipment**

The ESG Outcome:

- Lower emissions at the source
- Auditable energy and carbon data
- Eligibility for carbon credit origination and syndication
- Stronger compliance with disclosure and reporting frameworks
- Lower emissions from equipment maintenance repair and replacement

Power quality is not a technical footnote — it is a foundational ESG lever.

ESG & COMPLIANCE BENEFITS

Operational Savings That Support ESG

- **Verified kWh reduction**
  - Asset-backed & Utility-backed data, auditable for reporting and third-party verification
- **kVAr reduction**
  - Reactive power is eliminated at the circuit level
- **kWh demand reduction**
  - Peak demand lowered, utility charges reduced
- **Measurable Scope 2 emissions reduction**
- **Carbon Credit origination**
- **LEED Points**
  - Up to 18 per project
- **AB 1305 / SB 253 / SB 261 compliance support**
  - Each framework requires documented, defensible emissions and risk oriented data



ENERGY TO CARBON CREDIT CONVERSION

Understanding the mutually beneficial relationship between companies and carbon credit verification bodies is crucial for fostering sustainable growth and market transparency.



Every 2000 kWh reduced equals a metric ton of carbon emissions reduction, which is the basis of a carbon credit. The foundational data provided by the Emissions Factor Database (Energy Use Intensity) and the rigorous framework of Greenhouse Gas Protocols for verification. Together, they quantify the environmental benefit and economic return, offering a clear and transparent model.

Energy Reduction (kWh + kVAr)

Equipment Model	kW Reduction	Carbon Credit	kVAr Addressed	Carbon Credit	Emissions Reduced
EC Unit 3Y/480	3.5-4.5 kW	35,040 kWh x 0.5 kg/kWh = 17.5 metric tons CO_2e	19 kVAr	19 kVAr reduction = 4.5 metric tons CO_2e	22 tons CO_2e
EC Unit 3D/480	6.0-6.5 kW	52,560 kWh x 0.5 kg/kWh = 26.2 metric tons CO_2e	36 kVAr	36 kVAr reduction = 7.8 metric tons CO_2e	34 tons CO_2e

TAX INCENTIVES

Accelerate ROI with Federal & State Incentives

- Demand Response Rebates
- Local Utility incentives
- 179D Tax Break
- 45Y Investment Tax Credit
- 48E Production Tax Credit



SAMPLE ENERGY OPTIMIZATION PROPOSAL

Location: Orange County, CA | Southern California Edison Account

This proposal is a sample example prepared for demonstration purposes only.

Current Energy Profile

Metric	Current Status
Peak Demand (Mid-Peak)	577 kW
Reactive Demand	230 kVAr
Monthly Energy Consumption	148,951 kWh
Average Blended Rate	$0.2845 per kWh
Monthly Energy Cost	$42,370
Annual Energy Cost	$508,437
Power Factor Charge	$119.60/month
Service Voltage	480V, 3-phase

Proposed Equipment

Equipment Model	Qty	kW Reduction	kVAr Addressed
EC Unit 3Y/480	1	3.5-4.5 kWh	19 kVAr
EC Unit 3D/480	5	6.0-6.5 kWh each	36 kVAr each
Total System	**6**	**34 kWh avg**	**199 kVAr**

Includes: Electrical Components (disconnect, wiring, conduits, breakers)Monitoring System Real-time energy monitoring equipment, delivery, and Licensed installation.

Financial Highlights

Metric	Value
Total Investment	$150,000
Annual Energy Savings	$62,850 to $78,887
Monthly Savings	$5,238 to $6,574
Energy-Only ROI	23-28 months
Annual CO_2 Reduction	189 metric tons
Annual kWh Reduction	220,665 kWh

Incentives and Additional Revenue Streams

Revenue Stream	Annual Value
Carbon Credit Revenue (60/40 split)	$1,570 - $3,140
Demand Response	$3,000 - $6,000
Total Annual Cash Flow	$4,570 - $9,140
Incentive/Credit	**Est. Value**
SCE Business Efficiency Rebate	$20,000 - $45,000
Section 179D Tax Deduction	Est. range: $0.50/sq ft
Tax Credits (48E/45Y)	**$$TBD$$**

OUR TEAM



Santiago Flores
Founder/CEO



Mark Ware
Chief Technology Officer



Juan Ortiz
Chief Financial Officer



Kyle Johnson
Executive Vice President



Shauna Ault
VP of Client Relations



Martin Duff
Director of Partnerships



Nick Albert
Technology Advisor



Melika Jahangiri
Executive Advisor



John Baackes
Strategic Advisor



Peyman Shahmirzadi
Strategic Advisor



David Prouse
Technology Designer



Andrew Krieger
Finance Associate

OPTIMUM POWER SPECIFICATIONS

- 480V 3-phase
- 100 kW - 1 MW demand (100 kW/unit)
- kWh Reduction > 4 kW (Y) + 6 kW per additional unit (D)
- kVAr Reduction > 19 + 36 per additonal unit

Engineered for commercial and industrial demand profiles.

PURE ENERGY STREAM

THANK YOU

FROM PURE ENERGY STREAM AND OUR TECHNOLOGY PARTNERS!

LACI

LA DWP Los Angeles Department of Water & Power

U.S. GREEN BUILDING COUNCIL CALIFORNIA NET ZERO ACCELERATOR

LARTA INSTITUTE

NEXT STEPS

- Review utility and power quality data
- Identify target panels and loads
- Quantify savings and incentives

www.pureenergystream.com