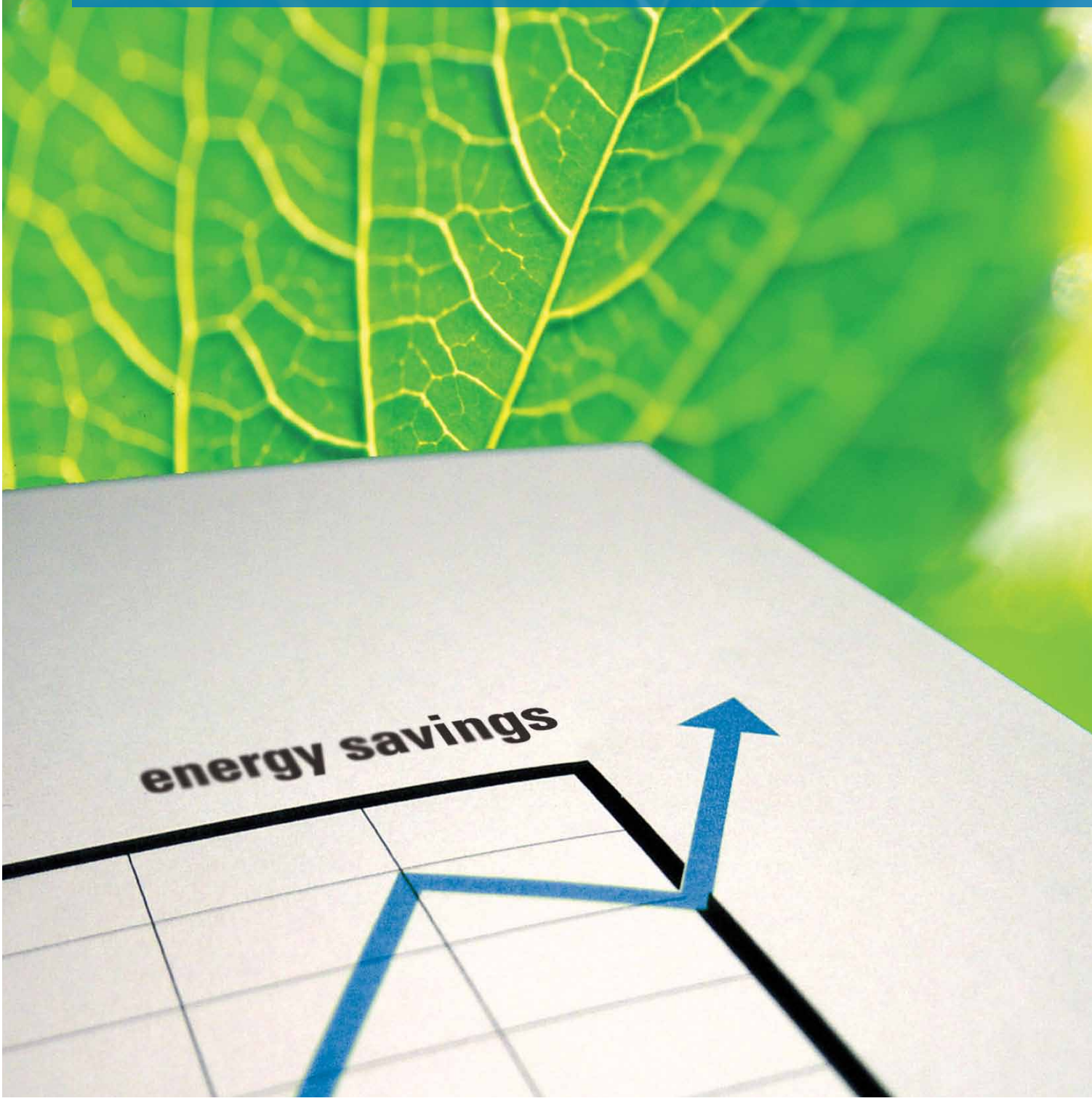
Solutions



Powering Business Worldwide

Acme Light & Power
PO Box 1000
Anytown USA

Account Number	1000009
Statement Date	8/23/2009
Days in billing period	30
Rate Schedule	Industrial

Service For:
North Bay Treatment Facility
6789 Bayside Road
Boston MA 03346

Account Summary

Previous Balance	Jul 10	$220,342.02
Payment	Jul 31	$220,342.02
Balance		**$0.00**

New Charges/Credits

Energy Usage Charge	$137,571.13
Demand Charge	$94,469.87
Power Factor Charge	$11,005.69
Total New Charges	**$243,046.69**

AMOUNT NOW DUE: $243,046.69

A

Energy Usage Detail

Peak Power	$0.17/kWh	527574 kWh	$89,687.66
Off Peak Power	$0.13/kWh	368334 kWh	$47,883.47

B

** Peak power is power used between 12:00PM-8PM Monday-Friday*

C

Demand Detail

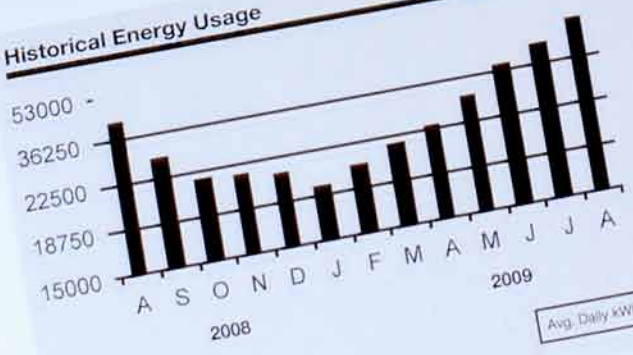
Date of Peak Demand	$10.04/kW	9,409 kW	$94,469.87
August 7, 2009			

D

Power Factory Adjustment $11,005.69

Average Monthly Power Factor 0.82 PF

Historical Energy Usage



Historical Demand

Your bill.
Let's see how low it can go.

The world is more energy conscious these days. But unlike you, most of the world doesn't pay a utility bill that rivals the cost of a four bedroom home. You need to know where energy is being expended in your facility and how you can make it more of an asset and less of a liability.

It starts with the right products in the right places. In the following pages, you will see where Eaton delivers and others fall flat. Whether you are looking for a special piece of gear to help identify energy loss, or a full blown solution for asset optimization, you are bound to find what you need. Each product is rated on how much it enhances efficiency and saves in time of use, energy demand, penalties and validation processes.

YOUR ENERGY BILL AT A GLANCE

A. Energy Used

This section lists the total amount of energy used during the billing period in kilowatt-hours (kWh). You can reduce this area of your bill by improving efficiency, reducing losses and decreasing consumption.

B. Time of Use

To recoup the higher cost of power generated during peak daytime hours most large power users pay a higher rate for peak use. Usually, the off-peak (night time) usage charges are significantly lower.

C. Demand

This is the maximum load in kilowatt (kW) placed on the utility's system by your facility's equipment as recorded over a specific interval of time.

D. Penalty

The lower your facility's power factor is, the higher your penalty will be. Usually utilities charge around 1% of the monthly cost for each 0.01 power factor below 0.90. Some utility companies will bill for kVA instead of kW, which includes a premium for the power factor.

Transformers

By placing the transformer closer to the load, you get better power distribution. Both of these transformer solutions can increase efficiency and reduce usage penalties.

◐ = Moderate Efficiency Savings

◐ = Moderate Penalty Savings

Energy Efficient Transformers

Eaton's low temperature rise energy efficient transformers offer greatly improved life expectancies and substantial increases in overload capabilities. These transformers can help cut operating expenses for systems requiring unit loading at 80 to 100% of the nameplate rating, 24 hours a day, or where load growth is expected.

Specifically designed to meet the NEMA Energy Efficient standards and for applications where the average loading is in excess of 50%, this low temperature rise (115°C or 80°C) product offers significant energy savings, which are is realized due to fewer losses in the transformer and reduced heat production.

◐ = Moderate Efficiency Savings

Harmonic Mitigating Transformers

Reduce harmonic currents and reap many benefits: lower your maintenance and replacement costs; eliminate overheating of the transformer and excessive operating temperatures. Less heat means less cooling costs where the transformer is installed. Even though there is less heat, you can still use the full capacity of the transformer; no need to de-rate the transformer below the nameplate capacity. Helps meet IEEE 519 harmonic limits.

◐ = Moderate Penalty Savings

Power Factor Correction and Conditioning Products

Don't rob your facility of its potential! If you have high performance equipment, you need high performance power conditioning products to get the most out of your investment.

● = High Penalty Savings

◐ = Moderate Efficiency Savings

Power Factor Correction Capacitors

Keep your power factor high, increase your system's capacity, and pay fewer penalties. In most cases, the payback is less than two years and many times, less than six months. Eaton offers free power factor site evaluations that will take all of the guess work out of finding the right solution for your site.

● = High Penalty Savings

◐ = Moderate Efficiency Savings

Harmonic Filters

Harmonics waste money and energy, two things no one should waste. Eaton offers both fixed and switched passive harmonic filters, the benefits of which are:

- Reduces harmonics and corrects and maintains desired power factor
- Ideal for 6-pulse drive and other high harmonic load environments
- Standard ratings available: 150-10,000 kvar, up to 15,000 Vac (other ratings available)
- Switched filters monitor the facility and add or subtract capacitance from the system to maintain a consistent level of desired power factor

● = High Penalty Savings

● = High Efficiency Savings

Active Harmonic Filters

Provides active harmonic control to monitor the distorted electrical signal, determine the frequency and magnitude of the harmonic content, and then cancel those harmonics with the dynamic injection of opposing current; all while providing the benefit of traditional passive filters with simpler engineering requirements, and easier, less expensive installation.

Ideal for retrofit, these active filters are available as both independent structures or as an integral component to a bundled motor control center. Additionally, they meet all IEEE 519 standards.

◐ = Moderate Penalty Savings

● = High Efficiency Savings

Automatic Transfer Switches

These reliable and compact assemblies transfer essential loads and electrical distribution systems from utility power to the emergency or back up power source. Automatic transfer switches have grown in popularity permitting critical loads to continue running with minimal or no outage.

= High Demand Savings

Busway

Choosing busway over cable will save you energy. Sized to carry the same current as cable, busway will have lower losses and can be reconfigured easily as facility needs change. Built to exact length, Eaton's efficient busway wastes nothing; specifically those skyrocketing raw materials, such as copper and steel. There are many busway designs to choose from, one is bound to make the most of your facility.

= Low Efficiency Savings

Motor Control Centers (MCC)

When you bundle products, you bundle savings. Grouping energy-saving motor control, associated control and distribution equipment together saves time, money, hassle and space. Eaton's MCCs are specially designed to operate machinery and industrial processes. Through eight regional U.S. service centers, MCCs can be customized to your exact requirements.

= Low Efficiency Savings

= Moderate Time of Use Savings

= Moderate Demand Savings

Ampgard® MV Adjustable Frequency Drives

In industry circles, the Ampgard drive is known as the market shaper. This medium voltage adjustable frequency drive delivers the most benefits in the smallest available package (that can still handle large relays and cables). Complete efficiency and easy maintenance with all of the protection and control your facility demands, and an isolation switch life of 5000 operations.

= Low Efficiency Savings

= Moderate Time of Use Savings

= Moderate Demand Savings

Counters

These counters allow you to define maintenance schedules based on use instead of fixed time. Preset use means you don't swap out equipment prematurely, which would waste money; nor do you switch it out too late, which would cause clogged filters or increased friction in the system. This inexpensive workhorse provides output signals at preset count values. Perfect for industrial water filling and dispensing applications, counters come with a variety of control options in different sizes, display types and feature sets. Eaton counters are a simple and effective way to what to know how much output is being achieved.

= Moderate Efficiency Savings

Molded Case Circuit Breakers

The time for fuses has long past. Circuit breakers save energy compared to fused disconnects because they have less watts loss for like ratings. And circuit breakers can be reset after they trip, while fuses must be replaced and discarded in compliance with special disposal procedures.

= Low Efficiency Savings

Paralleling Switchgear

Paralleling switchgear manages the critical transition from utility power to on-site power sources. This makes it practical to use combined heat and power (CHP) systems that take advantage of otherwise wasted heat energy or on-site power sources run on alternative fuels.

= Low Efficiency Savings

= Moderate Efficiency Savings

Uninterruptible Power Systems (UPS)

With energy costs overwhelming server costs in today's data centers, Eaton is responding to the demand for more energy-efficient solutions. The rack-based Eaton BladeUPS power system and the centralized Eaton 9395 UPS greatly reduce energy consumption without compromising reliability. With the new Energy Saver System the 9395 UPS operates at an efficiency of 99% and pays for in itself in reduced energy costs within three to five years.

= Low Efficiency Savings

Metering Devices and Software

Installing Eaton's meters on different pieces of equipment, you (and whomever you choose, wherever you choose) will get complete, real-time unbiased usage information about the power that is coursing through your facility and your energy usage. From the simplest of metering devices that can alert you to potential problems to the more advanced meters that can actually help you develop a baseline of energy usage, Eaton has the metering devices and software you need. Validate and then explain, to anyone who asks, just how seriously you take saving energy.

- IQ 100 – Basic Electrical Meters
- IQ 210/220/230/250/260 - Electronic Panel Meters
- IQ Energy Sentinel - Monitors Power and Energy Readings
- IQ Multipoint Energy Submeter II - Flexible Submetering for Energy Use
- IQ DP-4000 - Full Function Meter
- IQ Analyzer 6600 Series - Revenue Class Meter and Power Quality Analyzer
- Power Xpert® 4000/6000/8000 Meter Series - Next Generation Revenue Grade Power Quality Meter Series

● = High Demand Savings

Engineering Services

Eaton engineers find wasteful patterns in total consumption of energy from all sources—electricity, gas, steam and compressed air. They then recommend more efficient solutions that shrink energy use. A coordination study can optimize your electrical system's protection with the most efficient use of resources.

● = High Efficiency Savings
● = High Time of Use Savings
● = High Demand Savings
● = High Penalty Savings
● = High Validation Savings

Solid-State Overloads

Conventional thermal overloads use heat buildup to determine when to shut down the system to protect the motor. These thermal overloads increase the heat buildup in electrical rooms and require additional cooling from the HVAC system. By replacing thermal overloads with solid state overloads you improve your motor protection while removing waste heat buildup.

○ = Low Efficiency Savings

Lighting Contactors

Automate and save! Use Eaton lighting contactors to help automate lighting schemes to turn off when not needed (daylight) or not in use. They are both industrial and efficient, providing a safe and convenient means for local or remote switching of lamp loads. They are also suitable for other loads, such as low pressure and high-pressure sodium lamp loads and other non-motor (resistive) loads. Designed to withstand the large initial inrush currents of tungsten lamp loads without contact welding, these contactors are fully rated and do not require derating.

◐ = Moderate Efficiency Savings
○ = Low Time of Use Savings

LED Indicating Lights

LEDs are brighter and last longer, while using 1/3 of the energy of comparable incandescent lights. This results in less energy used and less heat in your electrical room. Eaton LED lights are built to last over 100,000 hours. Don't waste time or money on incandescent lights any longer.

○ = Low Efficiency Savings

Control Relays and Timers

Eaton's control relays and timers are ideal for industrial applications that require a high switching capacity and long electrical service life. The relays have short-term overload resistance in the event of short circuits or voltage peaks and offer quick system wiring, superior safety features and a high level of modularity.

◐ = Moderate Efficiency Savings

Sensors

If you want high efficiency you will require sensors. Whether your application requires sophisticated non-contact sensing solutions, rugged mechanically actuated switches or reliable safety products, Eaton has the sensing solution you need. Maybe you need the latest in photoelectric technology, or maybe you need the time-tested reliability of a limit switch. And in some cases, the best solution is a unique combination of different sensing technologies.

- Inductive Proximity
- Capacitive
- Photoelectric
- Current
- Limit Switches

◐ = Moderate Efficiency Savings

Pow-R-Command Lighting Control System

Through automated building management systems you reduce your energy consumption by 10 to 30 percent. Simple protocols can control your facility's lighting, heating and air conditioning, and electrical loads. End the manual exercise of checking where energy is being wasted. Eaton's industry-leading Pow-R-Command™ lighting control systems turn off the lights when a space is empty.

● = High Efficiency Savings

Reduced Voltage Motor Starters

Lower the demand on a motor during start-up, conserve energy and extend the life of the mechanical system. Eaton's reduced voltage soft starters are compact, multi-functional, easy to install, and easy to program. Designed for industrial, 3-phase motors, the line is available for current ranges from 0.8 amp through 1,000 amp applications and is suitable for mounting in motor control centers or in enclosed control. These reduced voltage motor starters offer integral run bypass, motor overload protection and advanced diagnostics.

○ = Low Demand Savings

Variable Frequency Drives (VFD)

Save a whopping 10-50 percent in energy when you use an Eaton variable frequency drive to adjust a motor's speed to closely match output requirements. By varying the speed to match the requirements, you remove the need for dampers and throttle controls; two energy wasters that require a lot of power to slow the system down.

● = High Efficiency Savings

◐ = Moderate Demand Savings

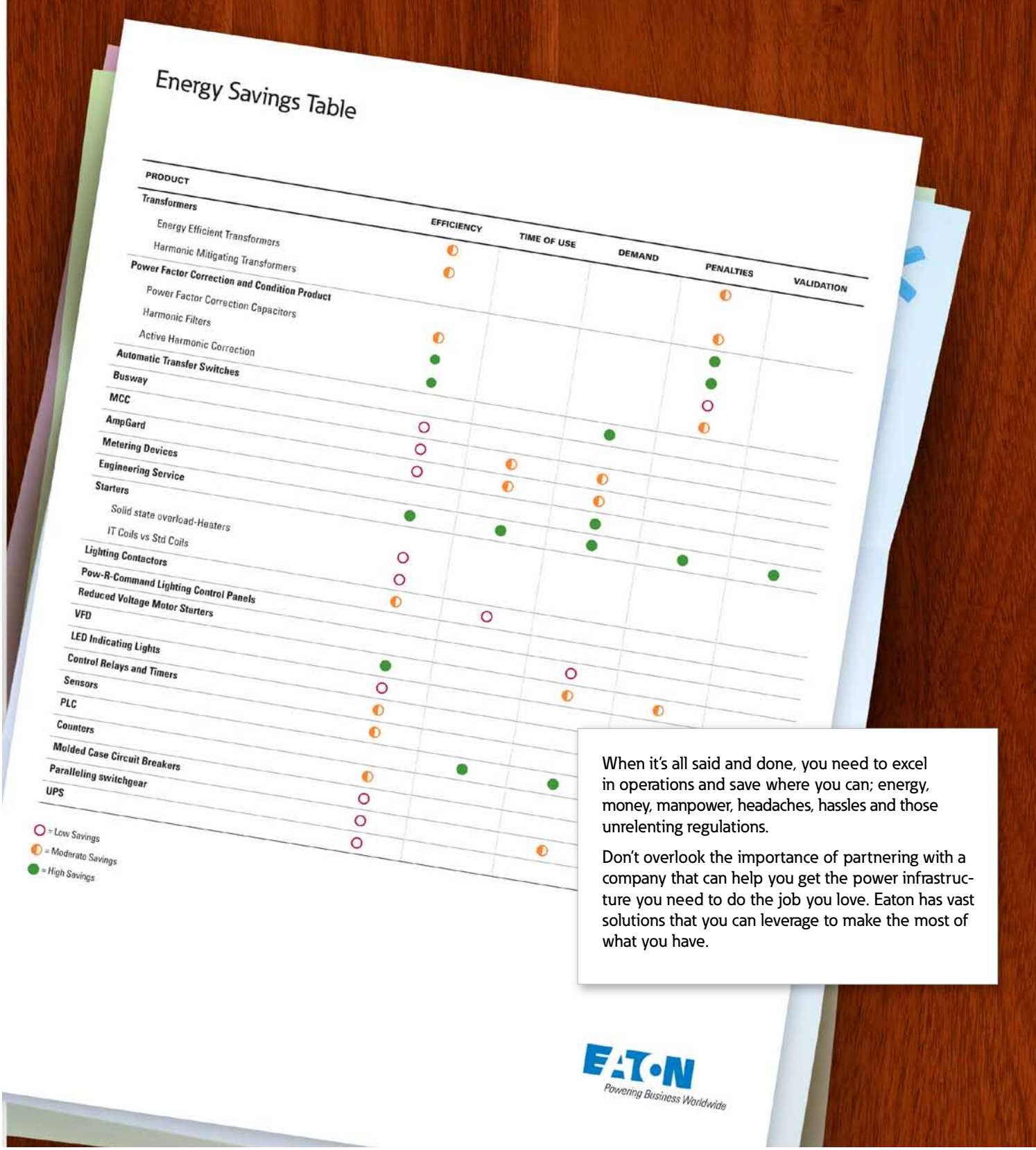
◐ = Moderate Penalty Savings

Programmable Logic Controllers (PLC)

You don't use sprinklers when it's raining, why would you use energy when no one is there to use it? Use your energy only when you need it with the Eaton Logic Controller (ELC). Automate and intelligently control power processes based on real-time environmental inputs. Instead of continuous energy processes, you want on demand energy processes. With easy interface applications and a wide range of customization capabilities, the ELC is a key component in your energy savings solutions.

● = High Time of Use Savings

● = High Demand Savings



When it's all said and done, you need to excel in operations and save where you can; energy, money, manpower, headaches, hassles and those unrelenting regulations.

Don't overlook the importance of partnering with a company that can help you get the power infrastructure you need to do the job you love. Eaton has vast solutions that you can leverage to make the most of what you have.

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