



Energy Solutions

Club e Cafe and Bistro Installs CMOS to Improve Operation Costs

CASE STUDY

Overview

The Challenge

Club e Cafe and Bistro experienced consistently high energy costs due to its use of refrigerated display cases and other heavy commercial equipment. Bi-monthly maintenance calls were needed to keep equipment in working order.

The Solution

Club e Cafe and Bistro installed IP UtiliNET's Circuit Monitoring System (CMOS) for a six-month period to determine power usage, consumption patterns and energy loss. DC Microgrid powered LED lighting was installed. Energy consumption and expense from each piece of gear was measured and compared against revenue to determine profitability.

The Benefits

Historical data gathered by the CMOS system provided the restaurant proprietor with enough information to make an informed decision. Menu changes were made and a schedule was set to phase out unprofitable equipment. The results: sales volume doubled, and energy costs dropped by 30%.

The Company

IP UtiliNET is a veteran-owned emerging technology company specializing in centrally managed communications, energy networks, product lifecycle solutions and security services. WWW.IPUTILINET.COM.



Developing Energy Efficient Solutions

Electricity costs for restaurants run high, with monthly averages amounting to 5 to 7 times more per square foot over other commercial businesses, *energystar.gov* reports. IP UtiliNET offers CMOS because it gives decision-makers clear usage statistics on energy use to enable the development of energy-efficient solutions.

IP UtiliNET's Circuit Monitoring System (CMOS) is a DC Microgrid and alternative energy-compliant solution that detects energy consumption patterns and alternative energy generation by the minute, day and month. Accessible from anywhere 24x7, the electrical circuit monitoring device is a secure, web-based auditing sub-metering system providing real-time visibility into frequency and duration of energy consumption. CMOS operates at the breaker panel or individual circuit breaker level, from 120 Volts (standard) to 480 Volts AC. CMOS can handle 50/60 hertz AC, as well as 15, 20 and 30 amp circuits and accommodates single phase, split phase, and 3-phase systems.

“Some of my restaurant equipment stood idle for a number of hours a day, but it was still using significant amounts of electricity. IP UtiliNET’s Circuit Monitoring System gave me true visibility into the issue, enabling me to make adjustments and save money.”

David Quinn, CEO of IP UtiliNET, believes the CMOS solution is an important first step for organizations considering ways to reduce costs in order to improve operations.

“We understand that reducing operational expenses is one of the chief business reasons companies seek energy-efficient solutions. CMOS gives our customers real data they can use to make positive changes that benefit the environment and the bottom line,” Quinn said.

Testing the Equipment

Club e Cafe and Bistro had been open for a year when the restaurant owner asked IP UtiliNET to test appliances on 12 circuits for energy consumption patterns. Appliances were on 120v and 240v dedicated circuits and were continuously monitored over a period of six months. As expected, electrical use of appliances spiked during certain times of the day, particularly during the breakfast period.

Once historical data was gathered on the equipment, a decision was made to replace some of the appliances and remove others, resulting in a reduction of 2500W of generated power per month.

“IP UtiliNET worked with us to evaluate every appliance and compare the energy cost with the amount of revenue produced. Using the data, we revised the menu and prioritized the removal and replacement of equipment. We are already seeing results. Average daily revenues have doubled and energy costs have been cut by 30%,” restaurant owner Lizette Hernandez said.

Deploying DC Microgrid Technology

In addition, IP UtiliNET installed direct current (DC)-based LED lamps instead of the traditional alternating current (AC) lamps. The 24 Volt DC lamps include a power supply module (PSM), which takes the AC power input and generates a 24 Volt DC grid to feed electricity.



The DC LED solution consumes 740W versus the standard 3000W, while reducing the amount of wattage required by 75%.

DSIMpower© or (Demand Side Intelligent Managed Power) is IP UtiliNET’s high-performance DC distribution and management system, offering scalability and implementation of renewables while meeting technical and budgetary needs of customers.

DSIMpower© eliminates the waste commonly associated with conversion from AC to DC, takes advantage of renewables such as battery and alternative energy sources, adds wired and wireless control options, and introduces “LADER©” or “local area distributed energy resources,” which are designed to survive grid outages while reducing operating costs.

IP UtiliNET’s lighting solutions combine advanced LED sources, luminaire and driver technologies. AC LED retrofit and DC LED lighting solutions offer extended lifetimes while meeting UL safety standards.



IP UtiliNET is a member of the Emerge Alliance, which is an open industry association developing standards for the rapid adoption of DC power distribution. For more information about IP UtiliNET energy solutions, please visit us at www.iputilinet.com or contact us by e-mail at solutions@iputilinet.com.